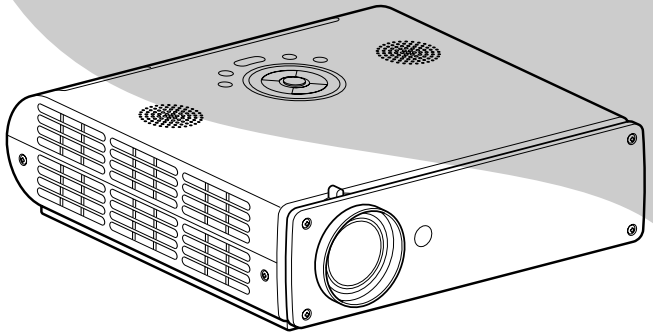
TOSHIBA

FILE NO. 330-200501

SERVICE MANUAL

DLP PROJECTOR

TDP-T80, TDP-T90, TDP-T91, TDP-TW90 TDP-S80, TDP-S81, TDP-SW80 TDP-MT200



Document Created in Japan Jan., 2005

Preface

This manual is applied to T80/T90/T91/TW90/MT200 / S80 / S81 / SW80 DMD Projector with digital imaging functionality based on Digital Micro-mirror Device (DMD) technology. It's the mode of single Panel, 200 watt Lamp. The manual gives you a brief description of basic technical information to help in service and maintaining the product.

Your customers will appreciate the quick response time when you immediately identify problems that occur with our products. We expect your customers will appreciate the service that you offer them.

This manual is for technicians and people who have an electronic background. Send the product back to the distributor for repairing and do not attempt to do anything that is complex or is not mentioned in the troubleshooting.

NOTICE :

The information found in this manual is subject to change without prior notice. Any subsequent changes made to the data herein will be incorporated in further edition.

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Chapter 1

Introduction

1-1 Product Highlights

Item	Description	T80	T90	T91	TW90	MT200	S80	S81	SW80
1	One panel 0.7 XGA / 12° DDR DMD projection system	V	V	V	V				
	One panel 0.55" WVGA / 12° DDR DMD projection system					V	V	V	V
2	200 Watt compact P-VIP Lamp (user replaceable, Lamp is driven by 200 Watt lamp driver)	V	V	V	V		V	V	V
	Phoenix X66 200W SHP Lamp (user replaceable)					V			
3	High efficiency cooling system with low system acoustic noise level (35 dB(A) in 160W eco-mode)	V	V	V	V	V			
	High efficiency cooling system with low system acoustic noise level (35 dB(A) in 150W eco-mode)						V	V	V
4	Light weight Approx. 2.8Kgs.	V	V	V	V	V	V	V	V
5	Manual focus projection, 1:1.2 mechanical zoom lens	V	V	V	V	V	V	V	V
6	True 1024 x 768 resolution, 16.7M True colors	V	V	V	V				
	True 854 x 480 resolution, 16.7M True colors					V			
	True 800 x 600 resolution, 16.7M True colors						V	V	V
7	With up, down, left, and right screen reverse	V	V	V	V	V	V	V	V
8	Build-in full screen NTSC / PAL / SECAM video capability with S-video / Composite / component through D-sub	V	V	V	V	V	V	V	V
9	SXGA / XGA / SVGA / VGA / MAC compatibility with two D-Sub 15 pin VGA connector input terminal	V	V	V	V	V	V	V	V
10	Auto image re-sizing to 1024 x 768 full screen	V	V	V	V				
	Auto image re-sizing to 854 x 480 full screen					V			
	Auto image re-sizing to 800 x 600 full screen						V	V	V
11	Auto detection of computer signal input	V	V	V	V	V	V	V	V
12	Auto Image synchronization (Auto-tracking / frequency / position adjustment) by Auto-setting key.	V	V	V	V	V	V	V	V
13	Freeze function.	V	V	V	V	V	V	V	V
14	Automatically saves adjustments for future use	V	V	V	V	V	V	V	V
15	IR remote control function	V	V	V	V	V	V	V	V
16	Adaptive voltage control fan speed	V	V	V	V	V	V	V	V
17	Auto & Manual Digital Vertical Keystone Correction	V	V	V	V	V	V	V	V
18	Built-in one 1W speaker	V	V	V	V	V			
	Built-in one 2W speaker						V	V	V
19	Camera			V				V	
20	Wireless				V				V

1-2 Mechanical Specifications

Item	Specification	Description	T80	T90	T91	TW90	MT200	S80	S81	SW80
1	Dimensions (WxHxD)	298x267x100.5 mm (main body)	V	V	V	V	V	V	V	V
2	Weight	Approx. 6.3 lbs. (2.86kg)	V	V	V	V	V	V	V	V
3	Cooling System	- Advanced air flow - Two fans with low system acoustic noise level - Temperature control circuits with adaptive voltage control fan speed - Maximum touch temperature follows UL 60950 regulation	V	V	V	V	V	V	V	V
4	Tilt Angle	6.8 degree with elevator mechanism	V	V	V	V	V	V	V	V
5	Keystone correction	+/-16 degree Vertical	V	V	V	V	V	V	V	V
6	Lamp Door Protection	Lamp power supply shut off automatically when door open	V	V	V	V	V	V	V	V

1-3 Display Panel Specifications

Item	Specification	Description	T80	T90	T91	TW90	MT200	S80	S81	SW80
1	Type	DMD (0.7 12 degree DDR XGA Digital Mirror Device)	V	V	V	V				
		DMD (0.55" 12 degree DDR WVGA Digital Mirror Device)					V	V	V	V
2	Number of active dots	1024(H) x 768 (V)	V	V	V	V				
		854(H) x 480(V)					V			
		800(H) x 600(V)						V	V	V

1-4 Electrical Specifications

Item	Specification	Description	T80	T90	T91	TW90	MT200	S80	S81	SW80
1	Power Supply	- Input AC 100-240V~, 3A, 50-60 Hz with PFC - Variance FAN speed control (Depend on temperature variant)	V	V	V	V	V	V	V	V
2	Terminals	- Computer Input (VGA) - Composite Video Input (x 1) - S-Video Input (Standard x 1)	V	V	V	V	V	V	V	V
3-1	Terminals & I/O connector	- Computer Analog Input (VGA x 1) - Component Video Input (RCAx 3) - S Video Input (Mini-Din 4-Pin x 1) - Composite Video Input (RCA x 1) - RS232 (Mini-Din 8pin x 1)	V	V	V	V	V	V	V	V
3-2	Terminals & I/O connector	- Digital Video with HDCP Input (DVI-D)					V			

Item	Specification	Description	T80	T90	T91	TW90	MT200	S80	S81	SW80
4	Input signal spec.	- Hsync Frequency 15~100 kHz - Vsync Frequency 43~85 Hz - Video Signal RGB (PC) 1.) Analog RGB : 0.7 Vp-p, 75 ohm 2.) Analog RGB : 1Vp-p, 75 ohm 3.) Sync. Signal Separate Sync : (HV) TTL level (bi-polarity) Composite Sync : TTL level (bi-polarity) Sync-on-green : negative sync. 0.3Vp-p - Video 1.) Composite video : 1Vp-p, 75 ohm 2.) S-video Luminance : 0.714Vp-p, 75 ohm 3.) Chrominance : 0.286Vp-p, 75 ohm	V	V	V	V	V	V	V	V
5	Video Compatibility	- Standards : NTSC : M(3.58 MHz), 4.43 MHz PAL : B, D, G, H, I, M, N SECAM : B, D, G, K, K1, L HDTV : 480i / 576i ; 480p / 576p ; 720p ; 1080i	V	V	V	V	V	V	V	V
6	XGA / Compression	By using DDP2000 Chips to compress SXGA image into XGA display	V	V	V	V		V	V	V
	SVGA / Compression	By using "DDP2000" Chips to compress SXGA image into WVGA display					V			

1-5 Optical Specifications

Item	Specification	Description	T80	T90	T91	TW90	MT200	S80	S81	SW80
1	Projection lens	F#2.4-2.65 @ 2.4m, f=28.04~35.59mm @ 2.4m. 1.2X Manual Zoom Lens.	V	V	V	V	V			
		F#2.4-2.81 @ 2.4m, f=22.34~26.59mm @ 2.4m. 1.2X Manual Zoom Lens.						V	V	V
2	Projection Image Size	Adjustable from 24.6" to 246" (Diagonal)	V	V	V	V	V	V	V	V
3	Throw Distance	1.2m~10m	V	V	V	V	V	V	V	V
4	Throw Ratio	2.0~2.4 ; 100" / 4.06m ~ 4.88m	V	V	V	V	V	V	V	V
5	Brightness	1850(Typical) ; 1600 (Minimum)	V	V	V	V		V	V	V
		650(Typical) ; 510 (Minimum)					V			
6	Contrast	Full on / off 1600:1 (Typical) 1000 : 1 (Minimum) JBMA 1600 : 1 (Typical) 1000 : 1 (Minimum)	V	V	V	V		V	V	V
		Full on / off 2500:1 (Typical) 1500 : 1 (Minimum)					V			
7	Uniformity	JBMA 75% (Typical) 60% (Minimum)	V	V	V	V		V	V	V
		JBMA 80% (Typical) 65% (Minimum)					V			
8	Lamp	OSRAM E17.5 200W P-VIP Lamp	V	V	V	V				
		Phoenix X66 200W SHP Lamp					V			
		Philips E19 200W UHP Lamp						V	V	V

1-6 Environmental Specifications

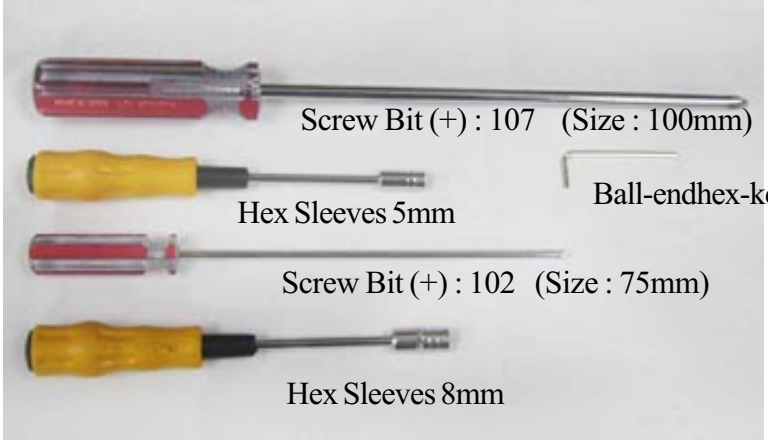
Item	Specification	Description	T80	T90	T91	TW90	MT200	S80	S81	SW80
1	Temperature	Operating : 0~35°C, 80% humidity, non-condensing Storage : -20~60°C, 80% humidity, non-condensing	V	V	V	V	V	V	V	V
2	Maximum Humidity	Operating : 0~35°C, 80%RH (Max.), non-condensing Storage : -20~60°C, 80%RH (Max.), non-condensing	V	V	V	V	V	V	V	V
3	Acoustic noise level	39 dB(A) (in 216W mode, at 23+/- 2°C) 35 dB(A) (in 160W eco mode, at 23 +/- 2°C) while color wheel are running with 7200 rpm	V	V	V	V				
		38 dB(A) (in 200W mode, at 23+/- 2°C) 35 dB(A) (in 160W eco mode, at 23 +/- 2°C) while color wheel are running with 7200 rpm					V			
		39 dB(A) (in 200W mode, at 23+/- 2°C) 35 dB(A) (in 150W eco mode, at 23 +/- 2°C) while color wheel are running with 7200 rpm						V	V	V
4	Altitude	Operating : 0°C~35°C for height : 0~2,500 ft 0°C~30°C for height : 2,500~5,000 ft 0°C~30°C for height : 5,000~10,000 ft fan speed adjusted by OSD menu Storage : 0~40,000 ft	V	V	V	V	V	V	V	V
5	MTBF	Operating more than 10,000 hours	V	V	V	V	V	V	V	V
6	Reliability Test	12,000 hours	V	V	V	V	V	V	V	V

1-7 Firmware

Item	Description	T80	T90	T91	TW90	MT200	S80	S81	SW80
1	Firmware A	V							
2	Firmware B		V	V	V				
3	Firmware C					V			
4	Firmware D						V	V	V

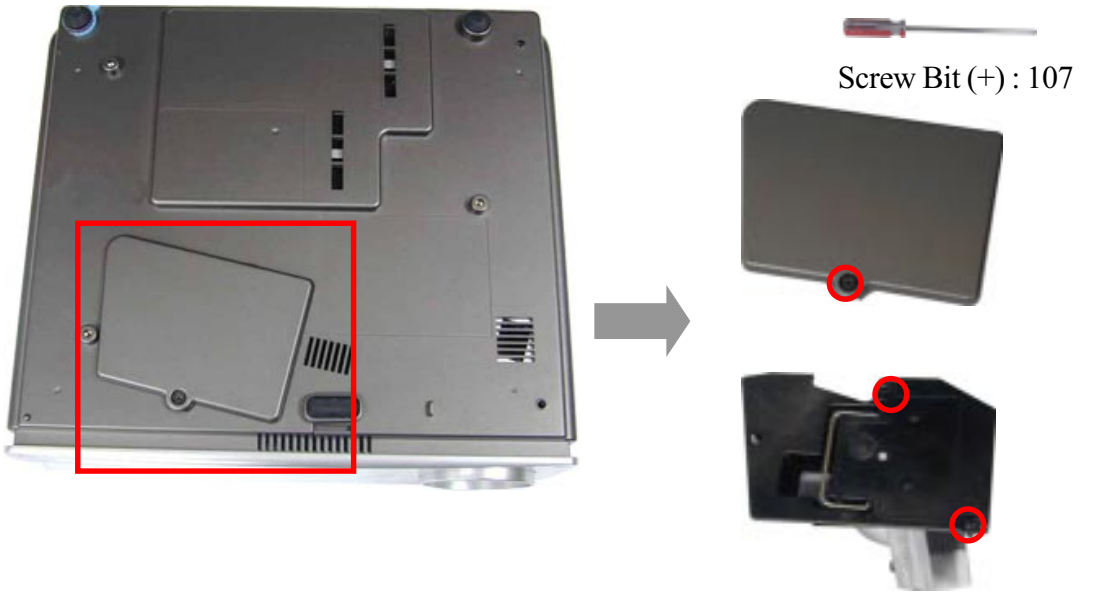
Disassembly Procedure

Tool Needed



2-1 Removing Lamp Module

1. Loosen one screw to remove Lamp Cover,
and then loosen 2 screws to remove Lamp Module.



2-2 Removing Front Cover, Option Cover and Rear Cover Module

1. Unscrew 4 screws to remove Front Cover.

Ball-endhex-key 2mm

Front Cover

2. Loosen 2 screws to remove Option Cover.

Screw Bit (+) : 107

Option Cover (Blank) PC + ABS - CAOLA

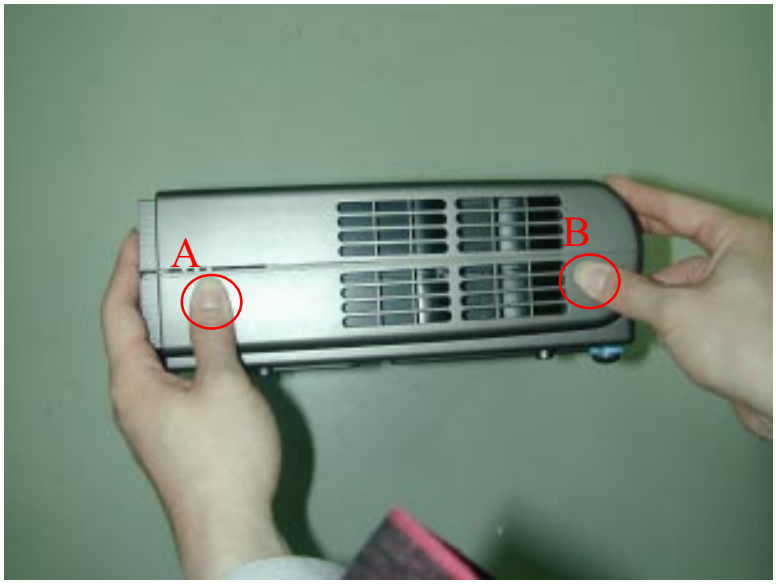
3. Unscrew 6 hex screws and 2 screws to remove Rear Cover Module.

Screw Bit (+) : 102

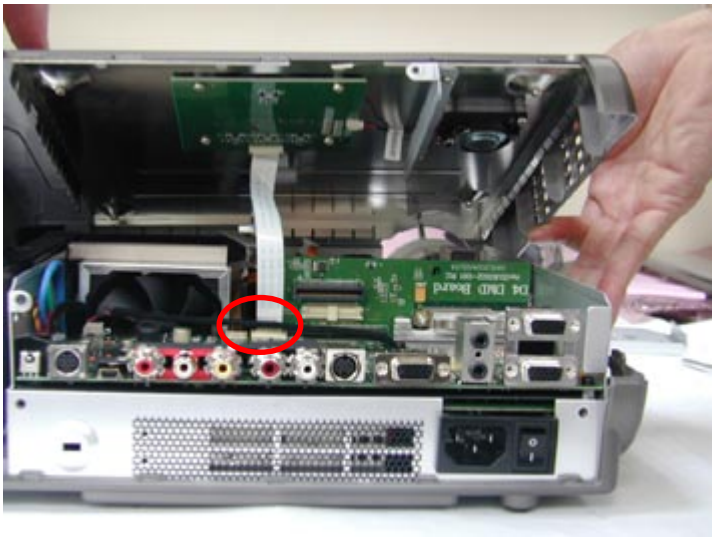
Rear Cover Module

2-3 Removing Top Cover, Keypad Board, Speaker and Select Button Module

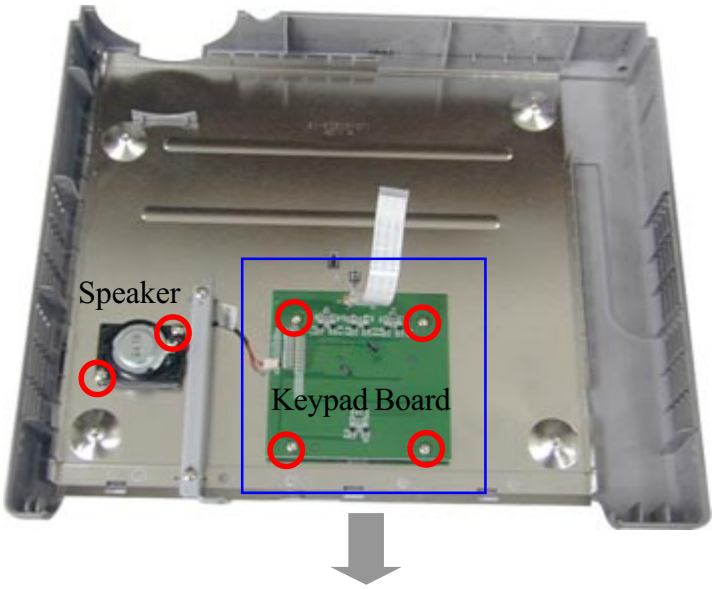
1. Press A point first and then press B point to separate Top Cover and Main Body carefully.



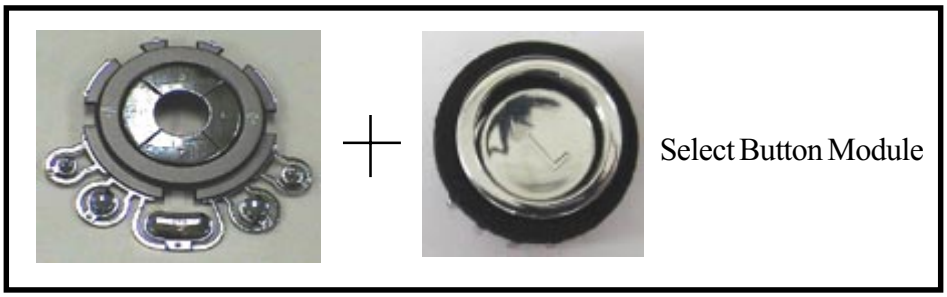
2. Unplug FFC cable to remove Top Cover.



3. Unscrew 6 screws to remove Keypad Board, Speaker and Select Button Module.



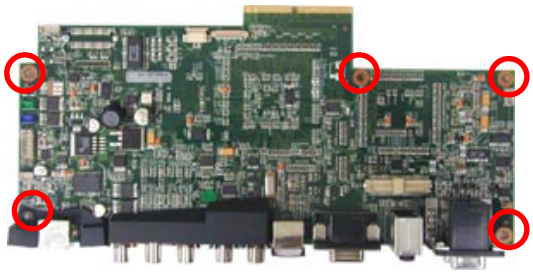
Screw Bit (+) : 107



2-4 Removing Main Board, LVPS Module, Lamp Driver Module and Fan Module

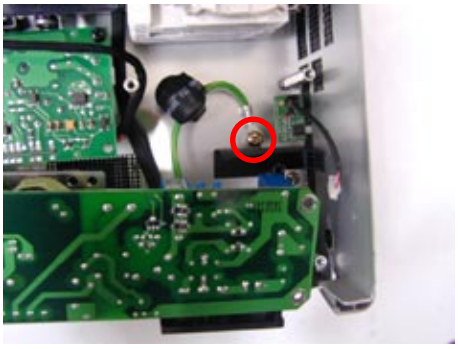
1. Unplug all cables from Main Board and Unscrew 5 screws to remove Main Board.

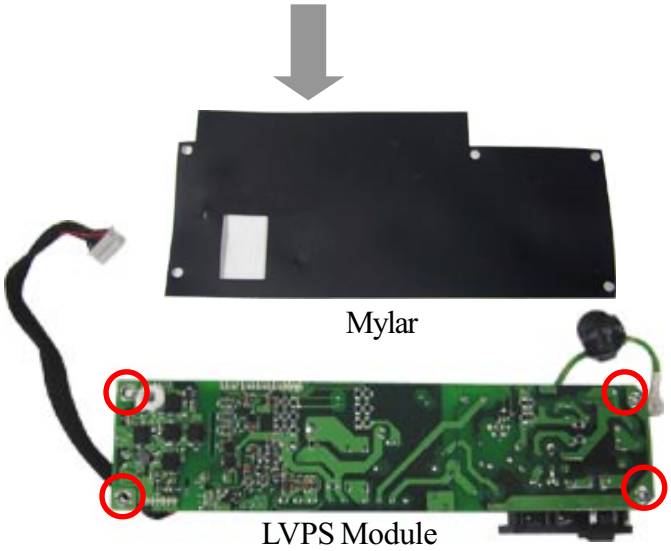
Screw Bit (+) : 107



2. Tear off Mylar and then unscrew 5 screws to remove LVPS Module.

Screw Bit (+) : 107

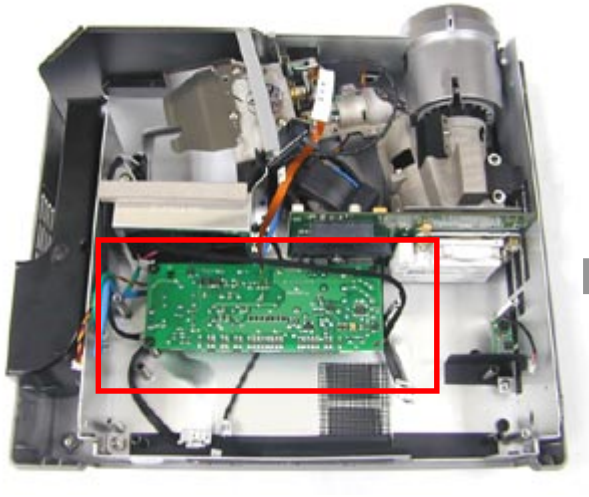


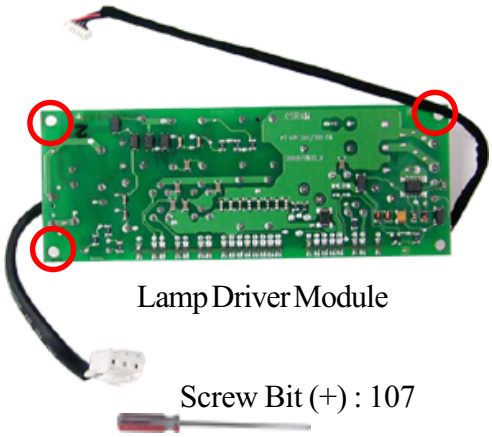


Mylar

LVPS Module

3. Unscrew 3 screws to remove Lamp Driver Module.



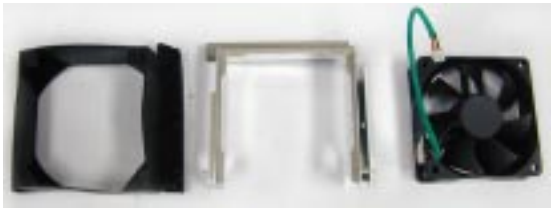


Lamp Driver Module

Screw Bit (+) : 107

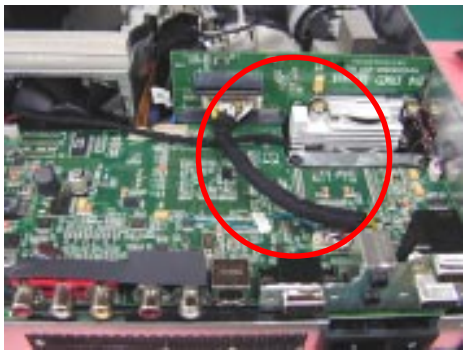
4. Unscrew 2 screws to remove Fan Module.

Screw Bit (+) : 107



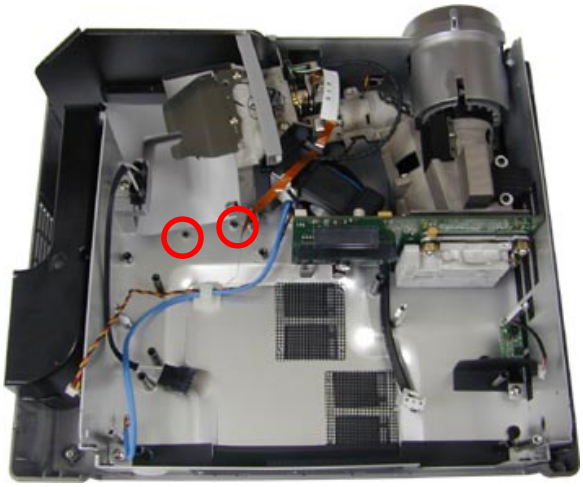
Axial Fan Module (70x70x20mm)

Note : TW90-Add one cable to link wireless function from Main Board of TW90. (As the picture display)



2-5 Removing Interrupter Switch, Engine Module, Fan Module and DMD Board

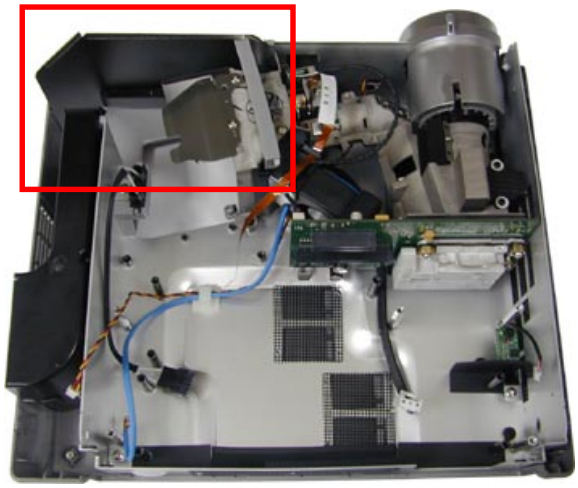
1. Unscrew 2 screws to remove Interrupter Switch.



Screw Bit (+) : 102

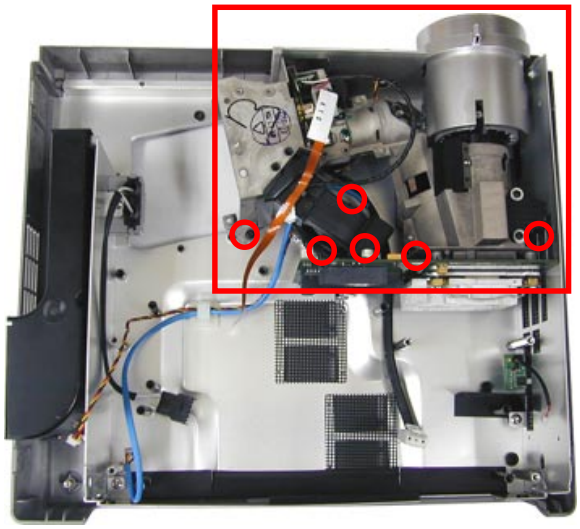
Interrupter Switch

2. Tear off Deflector Tinplate and then unscrew 5 screws to remove Brackets.



Screw Bit (+) : 102

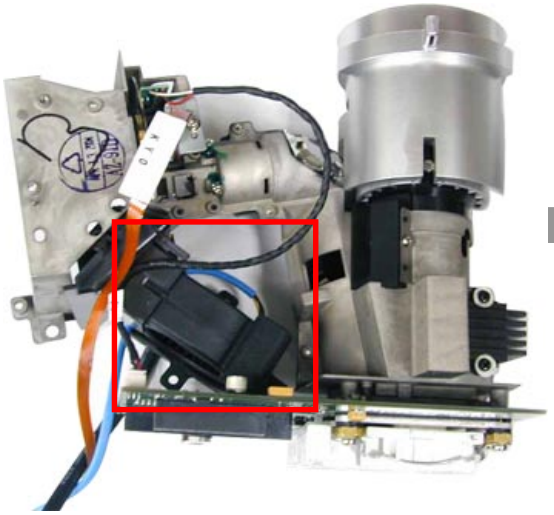
3. Unscrew 6 screws of the red rectangle area and then remove Engine Module.

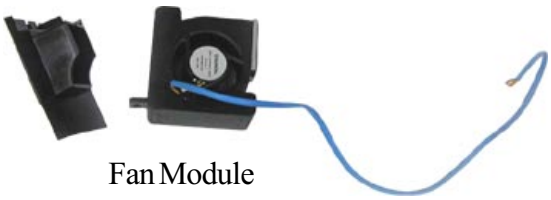


Engine Module

Screw Bit (+) : 107

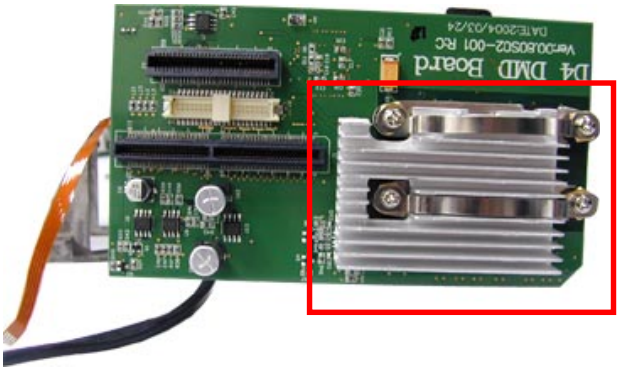
4. Remove Fan Module.





Fan Module
(50x50x20mm)

5. Unscrew 4 screws to remove Heat Sink.

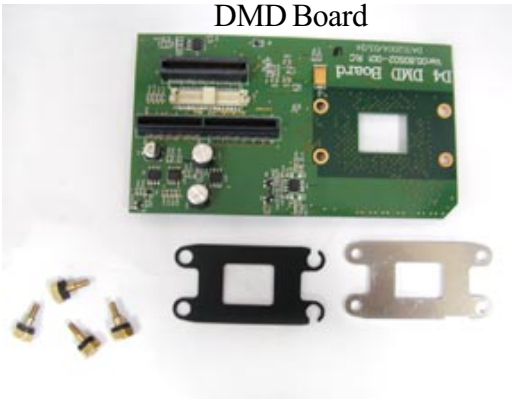


Screw Bit (+) : 107

Heat Sink

6. Unscrew 4 hex screws to remove DMD Board.

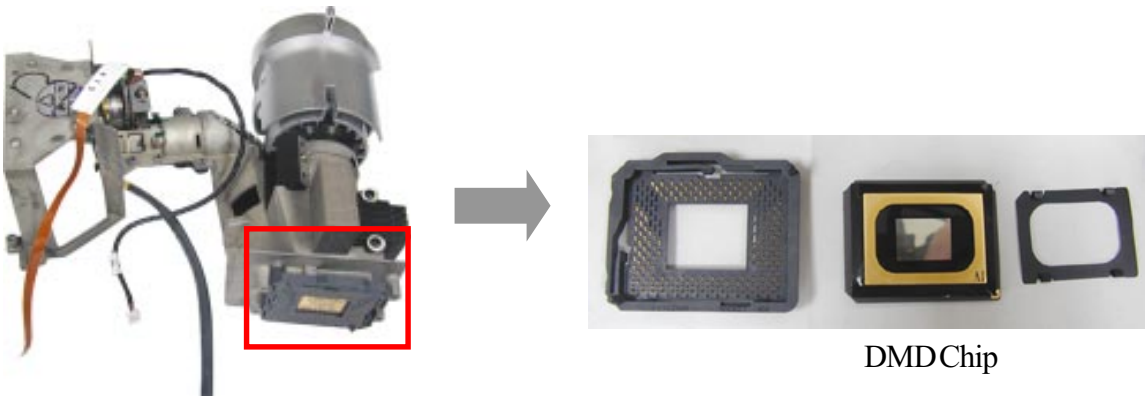
DMD Board



Hex Sleeves 8mm

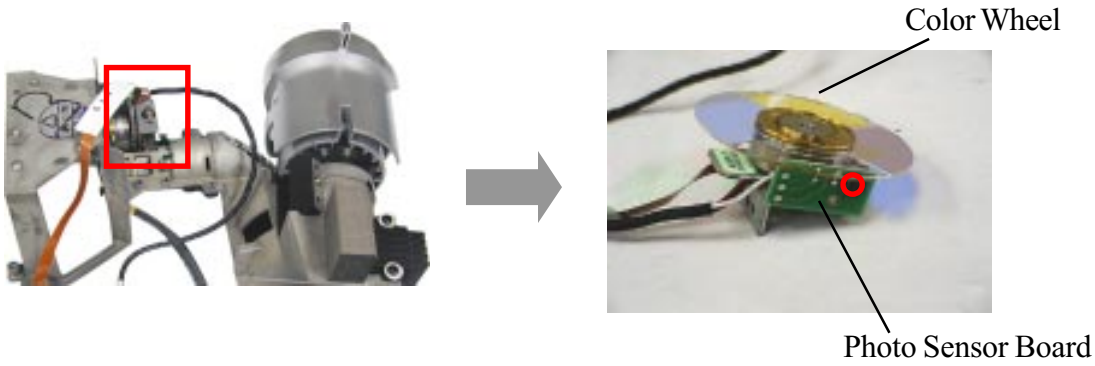
2-6 Removing DMD Chip, Color Wheel and Photo Sensor Board

1. Remove DMD Chip from Engine Module.

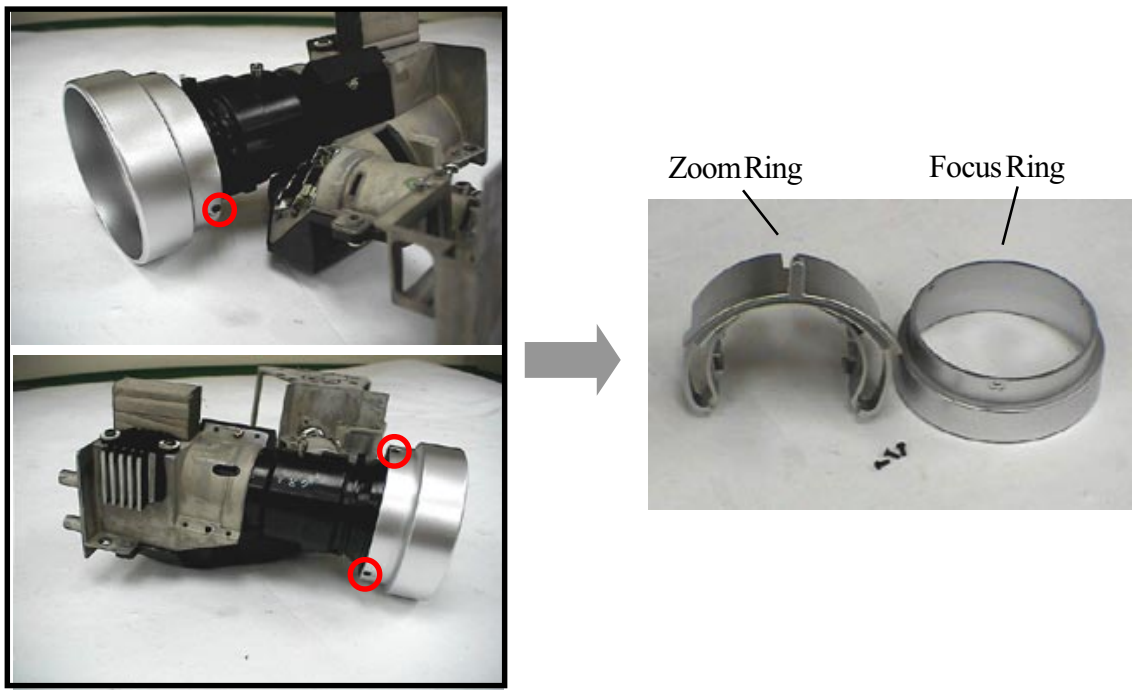


DMD Chip

2. Unscrew one screw to remove Color Wheel and Photo Sensor Board.

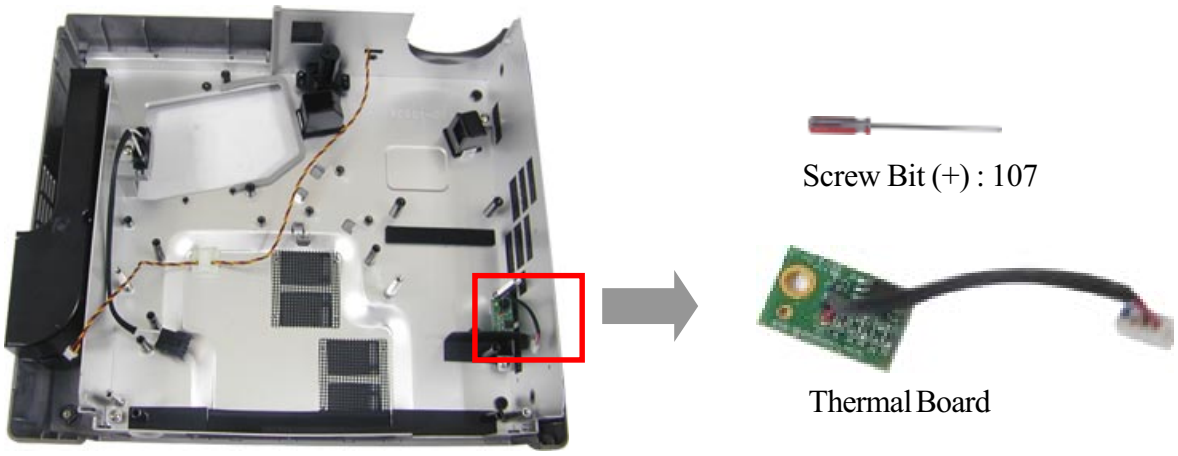


3. Unscrew 3 screws to remove Zoom Ring and Focus Ring from Engine Module.

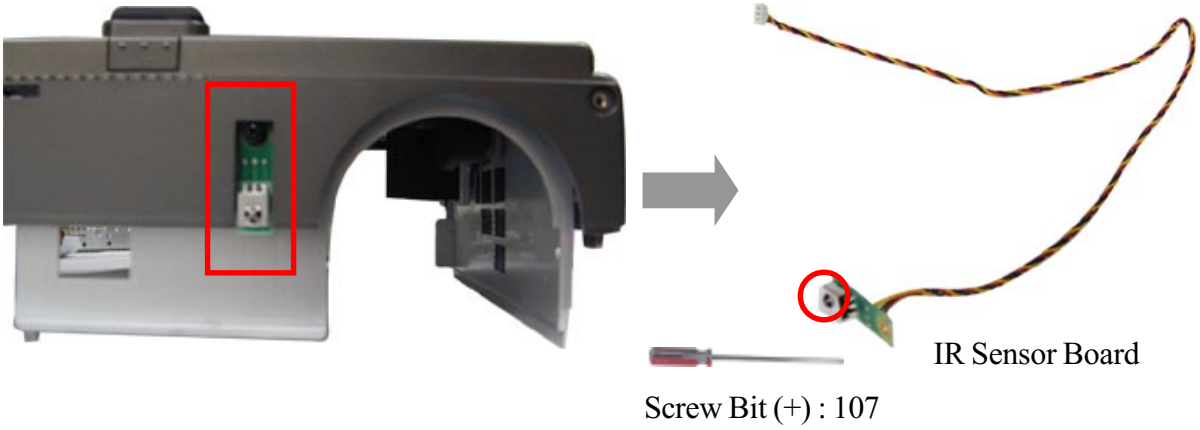


2-7 Removing Thermal Board, IR Sensor Board and Fan Duct

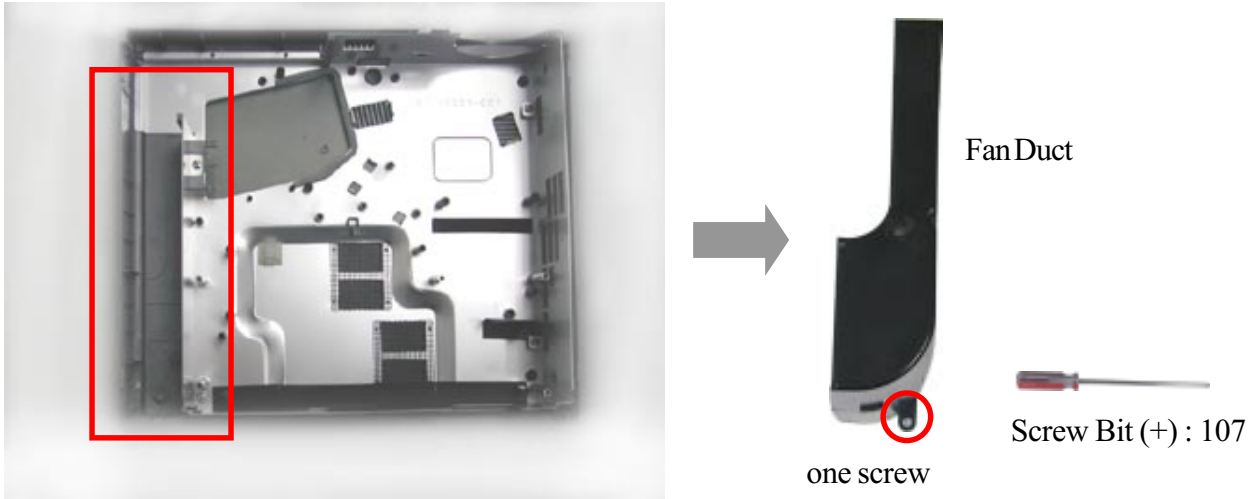
1. Unscrew one screw to remove Thermal Sensor Board.



2. Turn over Bottom Cover Module and then unscrew one screw to remove IR Sensor Board.



3. Unscrew one screw to remove Fan Duct from Bottom Module.



2-8 Removing Wireless Board (For TW90 Only)

1. Unscrew 2 screws to remove Option Cover.

Option Cover

2. Pull out the Wireless Board.

Chapter 3

Troubleshooting

3-1 Equipment Needed

- T80 / T90 / T91 / TW90 / MT200 / S80 / S81 / SW80 Projector
- PC (Personal Computer)
- CD Player, DVD Player
- VGA to VGA Cable
- Chroma

After changing parts, check the below information.

For example : Change the M/B, then check the Version Update, Color Wheel Delay, RGB Level, Frequency, Phase, Reset Lamp Use Time and Reset All.

Update / Change Parts	Version Update	Color Wheel Delay	RGB Level	Frequency	Phase	Reset Lamp Use Time	Reset All	Keystone Calibration (For T90 & S80 Series)
M/B	V	V	V	V	V		V	V
Firmware	V	V	V	V	V		V	V
DMD Board		V	V				V	
Engine		V						
Lamp Module						V		
LVPS								
Lamp Driver								

1.) Version Update : Refer Chapter 3-4 Hot Key, item 5

2.) Color Wheel Delay : Refer Chapter 3-4 Hot Key, item 7

3.) RGB Level : a. Press “Menu” button on the keypad to enter OSD function.

b. Press “UP” or “Down” button to select Image Adjustment Menu.

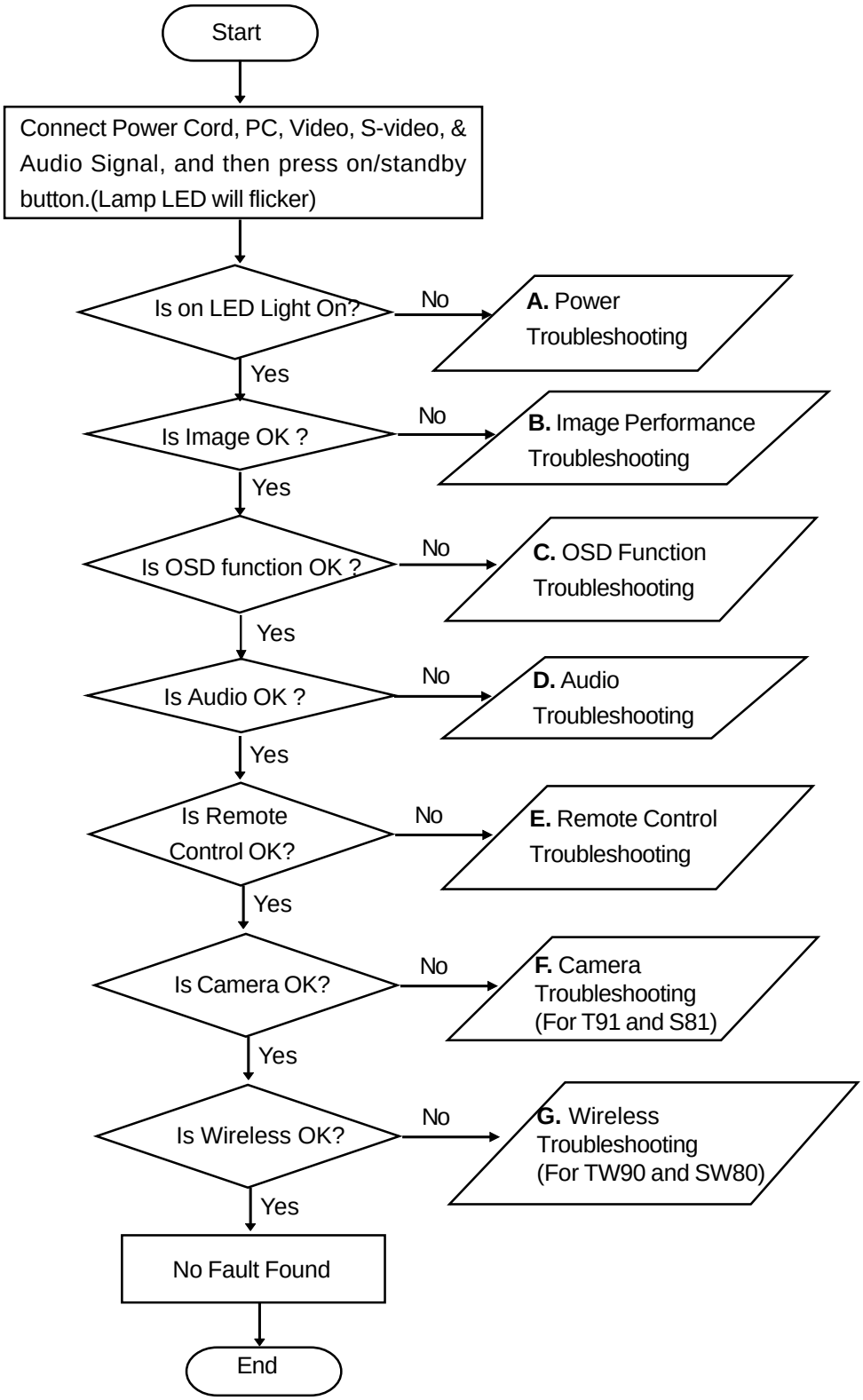
4.) Frequency : Press “Setup” button, then adjustment from “Frequency” mode.

5.) Phase : Press “Setup” button, then adjustment from “Phase” mode.

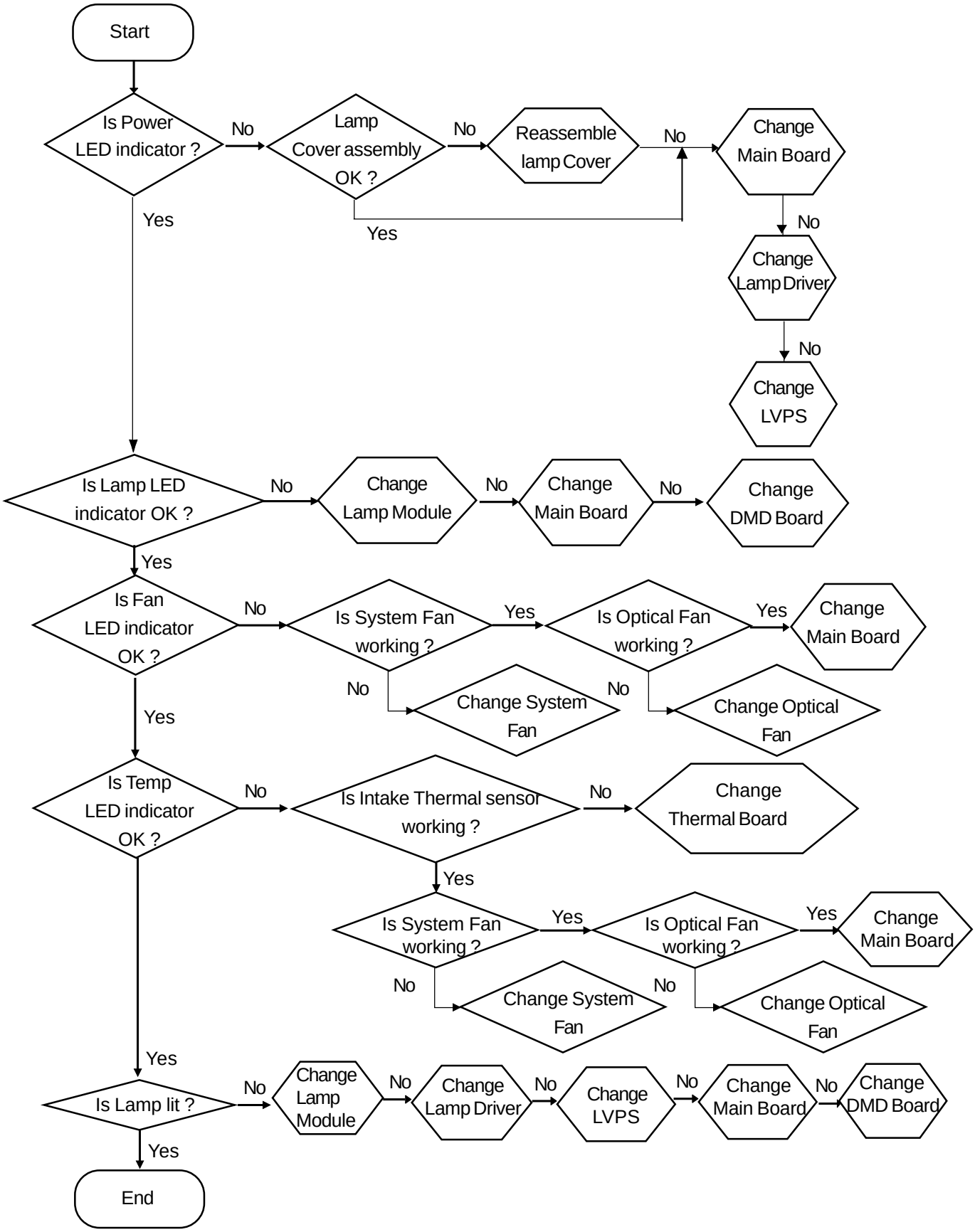
6.) Reset Lamp Use Time : Refer Chapter 3-4 Hot Key, item 3

7.) Reset All : Press “Menu” --> Default Setting Menu.

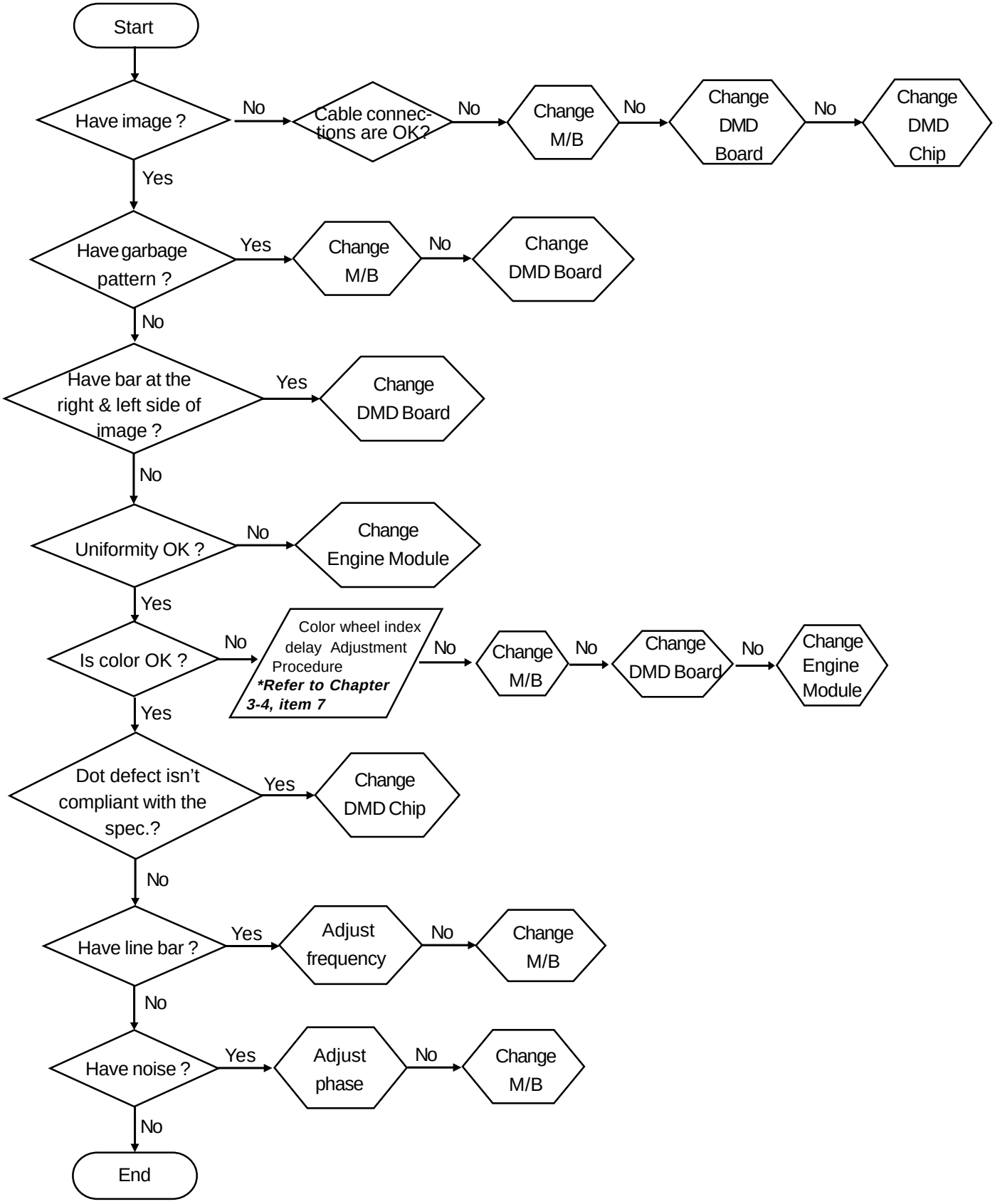
3-2 Main Procedure



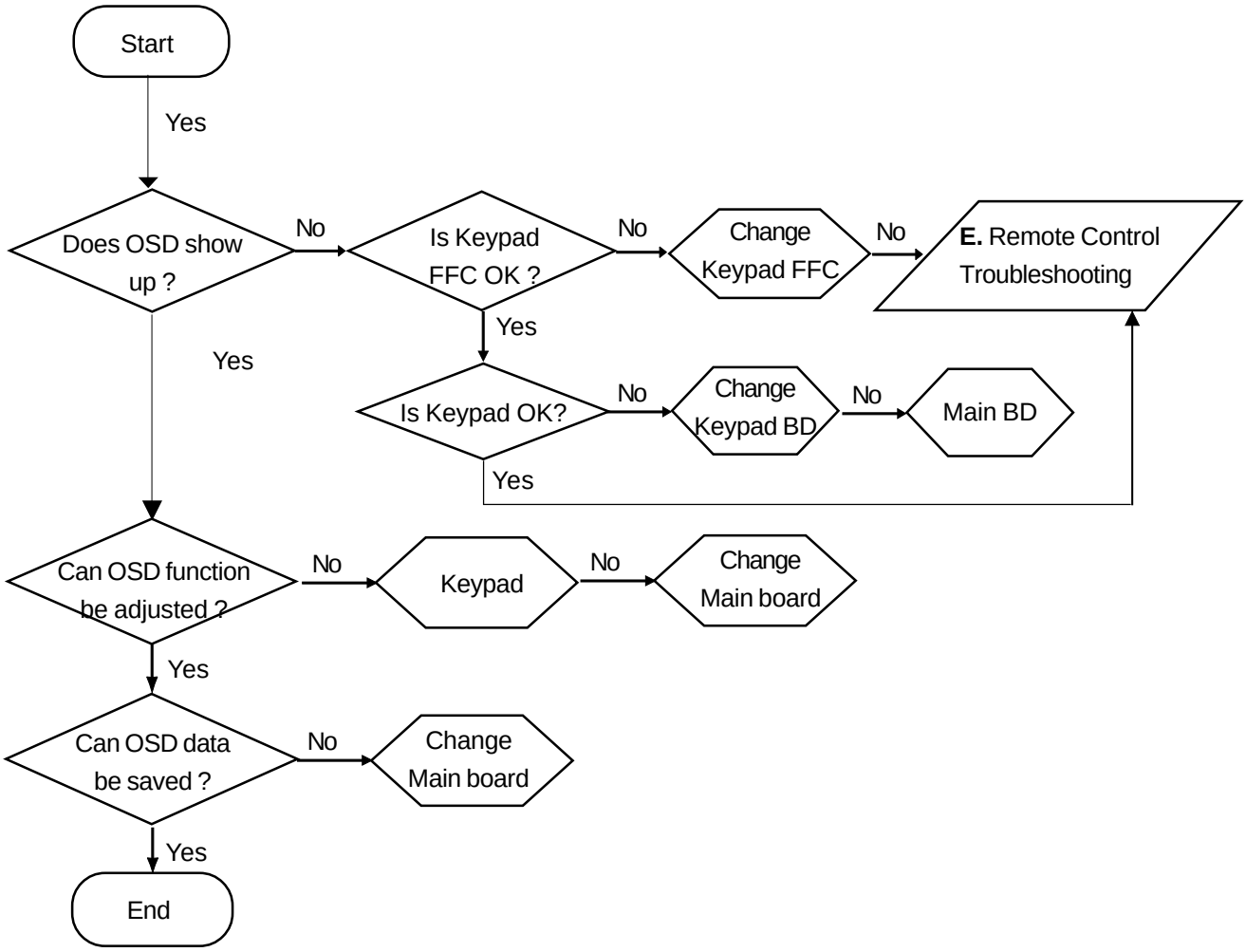
3-2.1 A. Power Troubleshooting



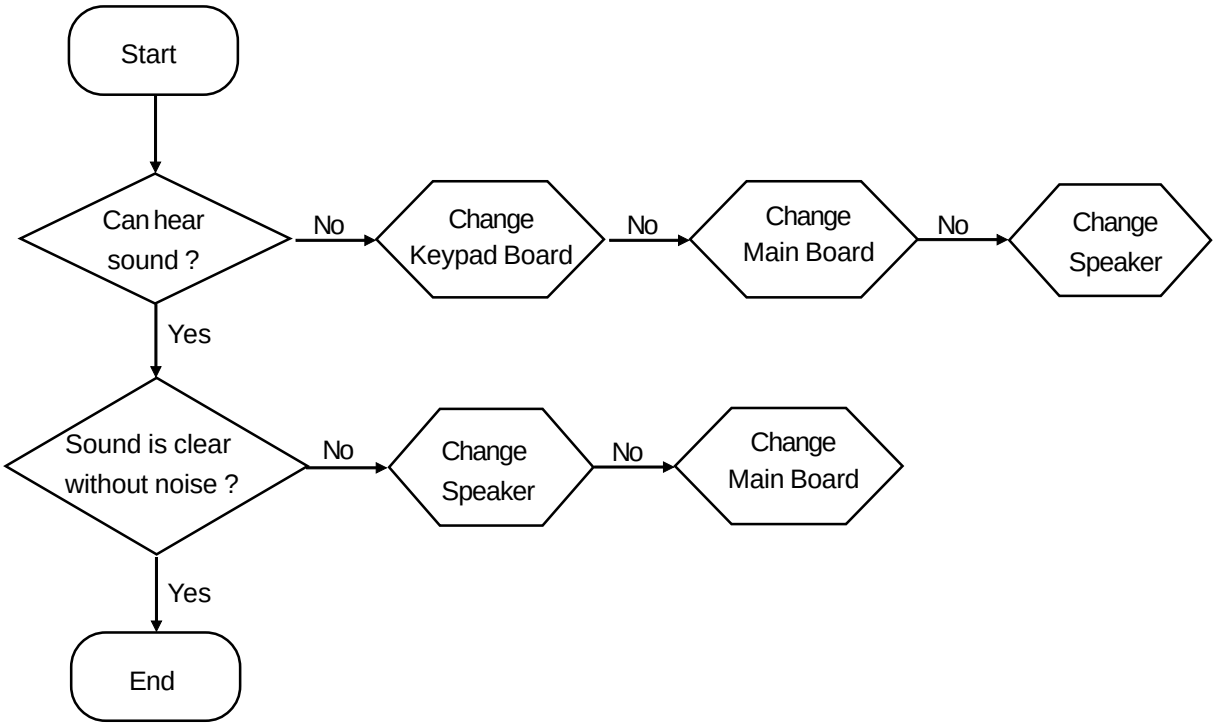
3-2.2 B. Image Performance Troubleshooting



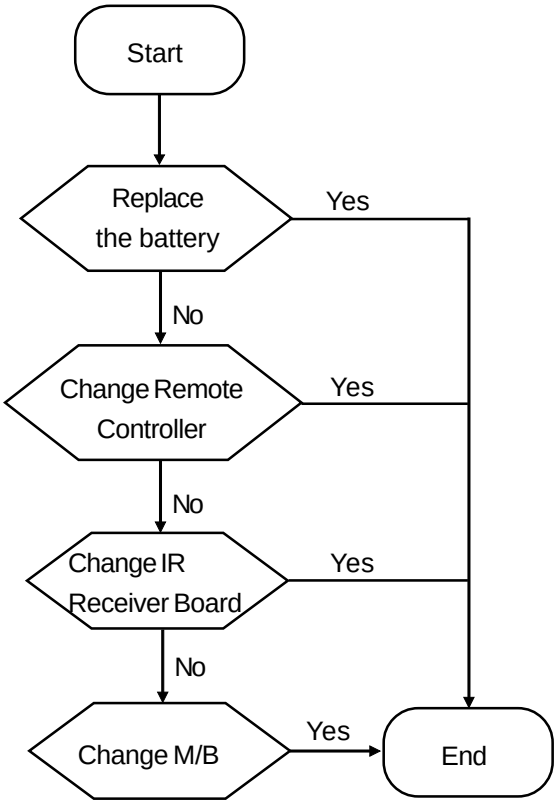
3-2.3 C. OSD Function Troubleshooting



3-2.4 D. Audio Troubleshooting



3-2.5 E. Remote Control Troubleshooting



3-3 Main Procedure Description

A. Power Troubleshooting

1.) No Power

- Check the Power Cord.
- Check the Lamp door.
- Ensure the keypad cable is well connected.

Judge

- Change LVPS or Main BD

2.) No Light

Lamp LED Indicator Fail

- Check all wires are well connected inside.
- Check Lamp Module

Temp LED Indicator Fail

- Turn on Main Power again.
- Check the Fan Module.
- Check the Thermal BD.
- Check the Thermal Switch.

Judge

- Change Lamp Driver or Main BD.

B. Image Troubleshooting

1.) No image on the screen.

- Ensure the signal cable and source are working fine.
- Press "Input" button to re-catch the signal again..

Judge

- Change Main BD or DMD BD or DMD Chip

2.) The image displayed with color issue

- Ensure the signal cable and source are working fine.
- Check the I/O connector
- Check Main BD if the image displayed without color abnormal issue when you input the signal with other ports.
- Check the photo sensor BD if the image displayed with color flicking issue.

Judge

- Adjust the RGB offset. ***Note**
- Adjust the color wheel index delay. (Refer to 3-4.5 CW index delay menu)
- Change Main board.

Note :

Press "Menu" button to enter setting display. Adjust the R-level, G-level, B-level.

3.) The image displayed with picture noise issue.

- Press “INPUT” button to re-catch the signal again.
- Check the signal cable.
- Check Main BD if there is no picture noise issue when you input the signal with the other connector.

Judge

- Change Main board.

4.) The image displayed with Dead Pixel/Line issue.

- Check the DMD chip if the bright dot issue when you input the signal.

Judge

- Change DMD board or DMD chip.

5.) The image displayed with focus issue.

- Adjust the focus ring.
- Ensure the projection distance is in spec.

Judge

- Change Optical Engine Module

6.) The image displayed with flicker issue.

- Check the Lamp Module
- Ensure the signal cable works well.
- Press “INPUT” button to re-catch the signal again.

Judge

- Change Main board or DMD board.

7.) The image displayed with uniformity issue.

- Ensure the projection lens is clean.
- Replace the lamp if the brightness is less than spec.

Judge

- Change the Optical Engine Module.

8.) The image displayed with line bar issue.

- Check if the line bar issue that can be fixed by “Frequency” function of OSD menu or not.

Judge

- Change Main board.

C. Audio Troubleshooting

1.) No Sound

- Press "VOL-" or "VOL+" button on the keypad and check if the mute function is enabled.
- Check Main BD if there is audio sound output when you input the audio signal with other ports.
- Check the speaker

Judge

- Change Keypad BD

2.) The audio sound is output with noise

- Check the sound volume.
- Check the speaker.

Judge

- Change Main Board.

D. Remote Control Troubleshooting

1.) The OSD menu cannot show on the screen when you press the menu button on the remote controller.

- Replace the new battery if there is no laser output when you press the laser button on the remote controller.
- Replace a new remote controller if there is OSD menu showing on the screen when you press the menu button on the keypad.
- Check the Main BD if there is no function when you press the function button on the keypad.

E. Wireless Troubleshooting (for TW90 and SW80)

1.) Execute "Reset all" (in OSD menu) if the wireless function is not activated.

Note: Normally the background color is blue when the projectors are in standby mode (no any input source)

2.) Check the PC settings.

3.) Check the Projector setting. (Refer to Chapter 4, P4-10 Wireless Testing Procedure)

Judge

- Change Wireless Card and Wireless BD.

F. Camera Troubleshooting (for T91 and S81)

1.) Check if the Projector is normal. (Note : Don't connect Camera for testing.)

2.) Check if VGA Cable is OK.

Judge

- Change Camera Module.

3-4 Factory Mode

Hot Keys to enter Factory Mode (T90 Series and S80 Series) (For TW90, it should have signal input)

[Press Volume button, set value to 9 and press "On/Standby", "Input" and "Setup" button simultaneously.]

Repeat the above-mentioned procedure in the bracket three times.

Hot Keys to enter Factory Mode (MT200) ▲

[Press the "ON/STANDBY" button and then press "Set up", "Input" and "Up" ( ) buttons simultaneously.]

Repeat the above-mentioned procedure in the bracket three times.

1. Press "INPUT" and "Up" button *simultaneously* to enter the keystone calibration menu.
2. Press "INPUT" and "Down" button to enter Burn-in mode menu.
3. Press "INPUT" and "Right" button to enter test pattern menu.
4. Press "Return" and "Up" button to enter Display the service status.
5. Press "Return" and "Left" button to enter Display the CW index delay menu.

3-4.1 Keystone calibration menu (For TDP-T90 and S80)

(Press "INPUT" and "UP" button simultaneously to enter the keystone calibration menu)

KC0	xxx	xxxxx	xxxxx
KC1	xxx	xxxxx	xxxxx
KC2	xxx	xxxxx	xxxxx
KC3	xxx	xxxxx	xxxxx

Note :

There should be values in keystone calibration menu; otherwise Auto keystone and Auto setting will not function.

Key :

Up/Down	Choose an item with cursor
Enter	Execute automatic calibration
Setup	Initialize adjustment values

a.) Horizontal calibration

Requirement:

Put the projector on the stand which is horizontally and is not tipped (0 +/- 0.1 degree)

Procedure:

Choose KC0.

Execute automatic calibration.

If adjustment is successfully completed, values will change from default value "0".

If it failed, values don't change.

b.) Upward calibration

Requirement:

Put the projector on the stand which is tipped at upward more than 30 degree.

Procedure:

Choose KC1.

Execute automatic calibration.

If adjustment is successfully completed, values will change from default value "0".

If it failed, values don't change.

c.) Downward calibration

Requirement:

Put the projector on the stand which is tipped at downward more than 30 degree.

Procedure:

Choose KC2.

Execute automatic calibration.

If adjustment is successfully completed, values will change from default value "0".

If it failed, values don't change.

d.) Horizontal calibration after heat-run

Requirement:

Put the projector on the stand which is horizontally and is not tipped (0 +/- 0.1 degree)

Procedure:

Choose KC3.

Execute automatic calibration.

If adjustment is successfully completed, values will change from default value "0".

If it failed, values don't change.

e.) Save data to E2PROM

Procedure:

Push Up/Down/Left/Right at the same time.

If these key inputs are accepted, all LEDs light orange.

3-4.2 Burn in mode menu

(Press Hot Keys, then press "Input"+"Down" key simultaneously

Burn-in mode			On	Off		
On time			xxxxM			
Off time			xxxxM			
			Setting			Elapsed
Cycle			xxx			xxx
Elapsed time		xxxxxH		xxM		xxS
Error count		xxx	Shut down			xxx
Error log	xx	xx	xx	xx	xx	
	xx	xx	xx	xx	xx	

Key :

Up/Down Choose an item with cursor

Left/Right Adjust a value / Choose a setting

Setup Initialize adjustment values

a.) Burn in mode setting

Procedure :

Choose the burn-in mode.

Select a setting.

b.) Burn in on time setting

Procedure :

Choose the on time.

Adjust a value.

Range is from 0 to 1275 minutes (5 minutes step).

0 means no on-time in the burn in mode.

c.) Burn in off time setting

Procedure :

Choose the off time.

Adjust a value.

Range is from 0 to 1275 minutes (5 minutes step).

0 means no off-time in the burn in mode.

d.) Burn in cycle setting

Procedure :

Choose the cycle.

Adjust a value.

Range is from 1 to 255 and INF which means infinity.

e.) Save setting to EEPROM

Procedure :

Push Up / Down / Left / Right at the same time.

If there key inputs are accepted, all LEDs light orange.

Besides, these settings are saved automatically when turning off the projector.

Notes :

If settings are valid, the burn in mode will start when the projector becomes the standby mode. Test patterns during the burn in mode are rotated on white, black, red, green and blue solid fields. The On LED blinks during the burn in mode.

Pushing the return key will cancel execution of the burn in mode.

When the burn in mode finishes, the projector becomes the standby mode automatically.

3-4.3 Test pattern menu

(Press Hot Keys, then press “Input”+”Right” key simultaneously

Start-up
White
Black
Red 255
Green 255
Blue 255
Blue 60
Gray 60
Gray 30
Gray 10
Gray 7
Yellow
Magenta
Cyan
Two Zone Blue 60
Two Zone Gray 60
Cross Hatch
Focus
V-Ramp

Key :

Up / Down	Choose an item with cursor
Enter	Display a test pattern
Return	Return to the test pattern menu

Notes :

This menu is for test use.

No value will be saved.

3-4.4 Service status

(Press Hot Keys, then press “Return”+”Up” key simultaneously

Version	xxxx-xxxx				
User lamp time	xxxxxH-xxM-xxS		xxx		
Panel time	xxxxxH-xxM-xxS		xxx		
Total time	xxxxxH-xxM-xxS				
Sub B	xxx-xxx-xxx	Sub C	xxx-xxx-xxx		
KC0	xxx-xxxxx-xxxxx	KC1	xxx-xxxxx-xxxxx		
KC2	xxx-xxxxx-xxxxx	KC3	xxx-xxxxx-xxxxx		
Fan1	xxxxxRPM	Fan2	xxxxxRPM	Fan3	xxxxxRPM
Temp1	xxxdeg	Temp2	xxxdeg	Temp3	xxxdeg
Engine No.	xxxxxxxxxxxx	Altitude	x		
C/W delay index	xxx	DMD bias	xxx		
Error count	xxx	Shut down	xxx		
Error log	xx-xx-xx-xx-xx-xx-xx-xx-xx-xx				

Notes :

The service status OSD is displaying factory settings. There is no item which can be operated. Right side numbers of the user lamp time and the panel lamp time mean reset counters of them.

The altitude is a setting of the fan high mode (Range is from 0 to 6).

The error count is the sum of all error counts.

A number in the error log means an error ID.

3-4.5 CW index delay menu (includes the DMD bias voltage)

(Press Hot Keys, then press "Return"+"Left" key simultaneously

C/W index delay		x	
DMD bias voltage		x	
White peaking		x	
Gamma table		x	
CSC table		x	
GAM	On		Off
CSC	On		Off

Key :

Up / Down	Choose an item with cursor
Left / Right	Adjust a value / Choose a setting
Setup	Initialize adjustment values

a.) CW index adjustment

Procedure :

Choose the C/W index delay.

Adjust a value.

Range is from 0 to 719.

Default value is 200.

Test Pattern : RGBW 64 scale.

b.) DMD bias voltage adjustment

Procedure :

Choose the DMD bias voltage.

Adjust a value.

Range is from B to E.

DMD Chip Default value is E.

c.) Save data to EEPROM

Procedure :

Push Up / Down / Left / Right at the same time.

If these key inputs are accepted, all LEDs light orange.

ID	Type	LED Pattern	Manual	Description	Detection Time
Normal Operating Group					
-	**Standby**	L T F / O	-	Standby state	-
-	**Normal**	L T F / O	-	Powered normal state	-
-	**Displaying Image**	[L] T F / O	-	Blinking 3 times just before displaying a image	-
-	**Save Factory Data**	L T F / O	-	Saving the factory data by the special key during the special mode	-
-	**Cooling 1**	[L] T F / O	-	In this cooling state, any operations are not acceptable	-
-	**Cooling 2**	L T F / O	-	In this cooling state, only turning-on is acceptable	-
Error Group					
-	**Hang-up**	L T F / O	o	Nonavoidable hang-up	-
1	**Lamp Turn On Error**	[L] T F / O	o	A lamp doesn't turn on T9x : Detection by UART / S2x : Detection by the status line	4.5 - 5.0 sec
4	**Fan Speed Error 1**	L T [F] / O	o	A speed of fan spinning is too slow (<= 1000 RPM) T9x : System Fan / S2x : DMD & Lamp Fan Also, when M62334 doesn't reply to I2C commands, this error will occur	7.0 - 13.0 sec
5	**Fan Speed Error 2**	[L] T F / O	o	A speed of fan spinning is too slow (<= 1000 RPM) T9x : Lamp Fan / S2x : Ballast Fan Also, when M62334 doesn't reply to I2C commands, this error will occur	7.0 - 13.0 sec
6	**Fan Speed Error 3**	[L] T [F] / O	o	A speed of fan spinning is too slow (<= 1000 RPM) T9x : Optical Fan / S2x : Power Fan Also, when M62334 doesn't reply to I2C commands, this error will occur	7.0 - 13.0 sec
8	**Temperature Error 1**	L [T] F / O	o	Temperature is too high (> T9x :45 / S2x : 55 degree C) or too low (< -40 degree C) T9x : Intake Temperature Sensor / S2x : Intake Temperature Sensor Also, when G751 doesn't reply to I2C commands, this error will occur	7.0 - 13.0 sec
9	**Temperature Error 2**	L T F / O	o	Temperature is too high (> 90 degree C) or too low (< -40 degree C) T9x : Board Temperature Sensor / S2x : Lamp Temperature Sensor Also, when G751 doesn't reply to I2C commands, this error will occur	7.0 - 13.0 sec
10	**Temperature Error 3**	L [T] F / O	o	Temperature is too high (> 90 degree C) or too low (< -40 degree C) T9x : Reserved definition / S2x : DMD Temperature Sensor Also, when G751 doesn't reply to I2C commands, this error will occur	7.0 - 13.0 sec

Error detections are running during powered normal state.
In the burn in mode, ON LED is always blinking.

O : ON / L : LAMP / T : TEMP / F : FAN

□ : Lit LED

[ ] : Blinked LED

Chapter 4

Function Test & Alignment Procedure

4-1 Product

- T80 / T90 / T91 / TW90 / MT200 / S80 / S81 / SW80

4-2 Test Equipment

- IBM PC with SXGA resolution (Color Video Signal & Pattern Generator)
- DVD player with component video(Y, Pb, Pr) and Multi-system(NTSC / PAL / SECAM)
- HDTV Tuner or Source (480i, 480p, 720p, 1080i)

4-3 Test Condition

- Circumstance Brightness :
  a. Dark room less than 10 lux for functional inspection.
  b. Circumstance brightness over than 500 lux for external inspection.
- Inspection Distance :
  About 2.44m for functional inspection
  (The projection distance has to be based on the screen size of 60 inches)
- Screen Size : 60 inches diagonal (wide)
- Each model should be cooling for 1 minutes after the run-in test.
  1.) In room temperature
  2.) With cycled display color (R,G,B,White)
- Test Display Mode & Pattern (Refer to 4-4.1 & 4-4.2)
- Function test and alignment procedure
- Run-in Time :
  After changing all materials
  1.) For LVPS and Lamp Driver, it will run-in 2 hours.
  2.) For DMD BD, Main BD, Thermal BD and Engine, it will run-in 4 hours.

4-4 Test Display Modes & Pattern

4-4.1 Compatible Modes

T80/T90/T91/TW90 Computer Compatibility (Analog)

Compatibility	Resolution	V-Sync(Hz)	H-Sync(KHz)
VGA	640*350	70	31.5
VGA	640*350	85	37.9
VGA	640*400	85	37.9
VGA	640*480	60	31.5
VGA	640*480	72	37.9
VGA	640*480	75	37.5
VGA	640*480	85	43.3
VGA	720*400	70	31.5
VGA	720*400	85	37.9
SVGA	800*600	56	35.2
SVGA	800*600	60	37.9
SVGA	800*600	72	48.1
SVGA	800*600	75	46.9
SVGA	800*600	85	53.7
XGA	1024*768	43.4	35.5
XGA	1024*768	60	48.4
XGA	1024*768	70	56.5
XGA	1024*768	75	60.0
XGA	1024*768	85	68.7
SXGA	1152*864	70	63.8
SXGA	1152*864	75	67.5
SXGA	1152*864	85	77.1
SXGA	1280*960	60	60
SXGA	1280*960	75	75
SXGA	1280*1024	43	46.4
SXGA	1280*1024	60	63.98
SXGA	1280*1024	75	79.98

Compatibility	Resolution	V-Sync(Hz)	H-Sync(KHz)
MAC 16"	832*624	74.55	49.725
MAC 19"	1024*768	75	60.24
MAC	1152*870	75.06	68.68
MAC G4	640*480	60	31.35
MAC G4	640/480	120	68.03
MAC G4	1024*768	120	97.09
i Mac DV	640*480	117	60
i Mac DV	800*600	95	60
i MAC DV	1024*768	75	60
i MAC DV	1152*870	75	68.49
i MAC DV	1280*960	75	75

4-4.2 Compatible Modes

MT200 Computer Compatibility (Analog / DVI with HDCP)

Compatibility	Resolution	V-Sync(Hz)	H-Sync(KHz)
VGA	640*350	70	31.5
VGA	640*350	85	37.9
VGA	640*400	85	37.9
VGA	640*480	60	31.5
VGA	640*480	72	37.9
VGA	640*480	75	37.5
VGA	640*480	85	43.3
VGA	720*400	70	31.5
VGA	720*400	85	37.9
SVGA	800*600	56	35.2
SVGA	800*600	60	37.9
SVGA	800*600	72	48.1
SVGA	800*600	75	46.9
SVGA	800*600	85	53.7
XGA	1024*768	60	48.4
XGA	1024*768	70	56.5
XGA	1024*768	75	60.0
XGA	1024*768	85	68.7
SXGA	1152*864	70	63.8
SXGA	1152*864	75	67.5
SXGA	1152*864	85	77.1
SXGA	1280*960	60	60
SXGA	1280*960	75	75
SXGA	1280*1024	60	63.98

Compatibility	Resolution	V-Sync(Hz)	H-Sync(KHz)
WVGA	854*480	60	32.2
MAC 16"	832*624	74.55	49.725
MAC 19"	1024*768	75	60.24
MAC	1152*870	75.06	68.68
MAC G4	640*480	60	31.35
i MAC DV	1024*768	75	60
i MAC DV	1152*870	75	68.49
i MAC DV	1280*960	75	75

4-4.3 Compatible Modes

S80 Series Computer Compatibility (Analog)

Compatibility	Resolution	V-Sync(Hz)	H-Sync(KHz)
VGA	640*350	70	31.5
VGA	640*350	85	37.9
VGA	640*400	85	37.9
VGA	640*480	60	31.5
VGA	640*480	72	37.9
VGA	640*480	75	37.5
VGA	640*480	85	43.3
VGA	720*400	70	31.5
VGA	720*400	85	37.9
SVGA	800*600	56	35.2
SVGA	800*600	60	37.9
SVGA	800*600	72	48.1
SVGA	800*600	75	46.9
SVGA	800*600	85	53.7
SVGA	1024*768	60	48.4
SVGA	1024*768	70	56.5
SVGA	1024*768	75	60.0
SVGA	1024.768	85	68.7
SVGA	1152*864	70	63.8
SVGA	1152*864	75	67.5
SVGA	1152*864	85	77.1
SVGA	1280*960	60	60
SVGA	1280*960	75	75
SVGA	1280*1024	43	46.4
SVGA	1280*1024	60	63.98
SVGA	1280*1024	75	79.98
MAC 16"	832x624	74.55	49.725
MAC 19"	1024x768	75	60.24
MAC	1152x870	75.6	68.68
MAC G4	640x480	60	31.35
i Mac DV	1024x768	75	60
i Mac DV	1152x870	75	68.49
i Mac DV	1280x960	75	75

4-4.4 Function Test Display Pattern

PC Signal :

Item	Test Content	Pattern	Specification	Remark
1	Frequency & Tracking	Fine Line Moire	Eliminate visual wavy noise byRe-sync, Frequency or Tracking selection.	Figure 1
2	Contrast/Brightness	32 Gray Scale / 64 RGBW scale	Gray level should be distinguishable and without color abnormal.	Figure 2, 3
3	R, G, B and White Color Performance	R, G, B and White Color	Each R, G, B color should be normal without color abnormal issue.	Figure 4~7
4	Screen Uniformity	Full White	Should be compliant with 65%. (Minimum)	Figure 7
5	Dead Pixel (Bright pixel)	Full Black	Cannot accept any bright pixel.	Figure 8
	Dead Pixel (Dark pixel)	Full White	The numbers of dead pixel should be smaller or amount to 8 pixels.	Figure 7
6	Blemish (Bright)	Full Black / Gary 30	The bright blemish cannot be accepted if the problem appears with Gary 30 pattern.	Figure 8, 9
7	Blemish (Dark)	Full white / Blue 60	The dark blemish cannot be accepted if the problem appears with Blue 60 pattern.	Figure 7, 10
8	Focus	Text Pattern	The text in the corner should be clear after adjusting the focus ring.	Figure 11
9	Boundary	Boundary Frame	Horizontal and Vertical position of video should be adjustable to be the screen frame.	Figure 12

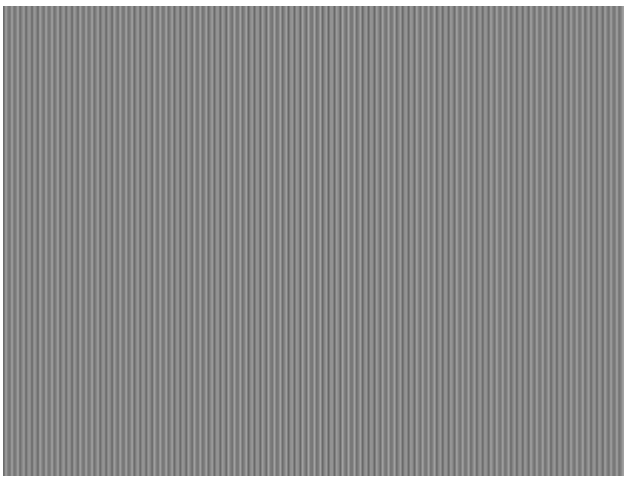


Figure 1. Fine Line Moire

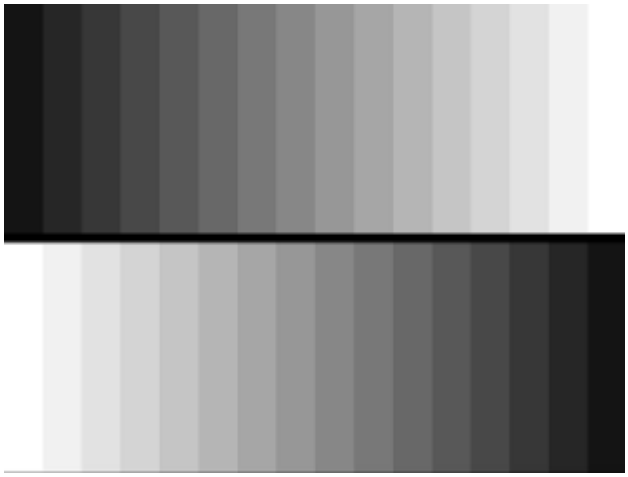


Figure 2. 32 Gray Scale

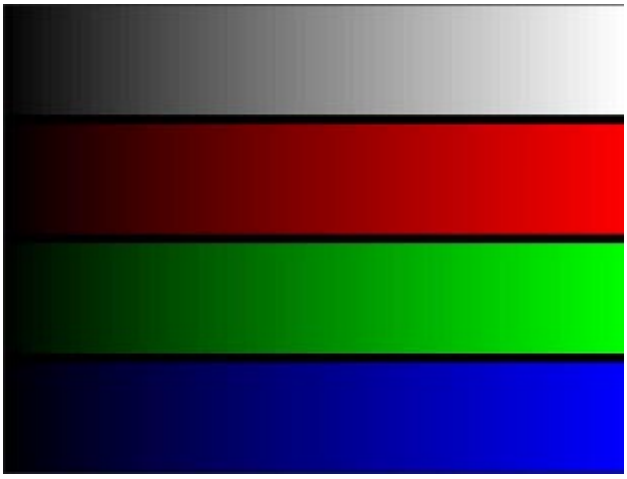


Figure 3. 64 RGBW Scale

Figure 4. Red Pattern

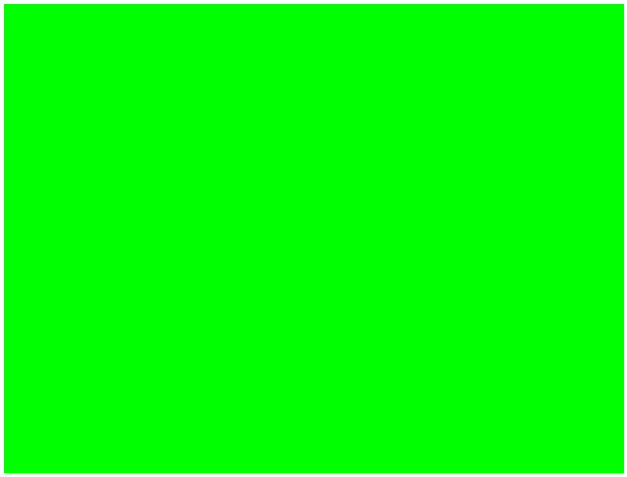


Figure 5. Green Pattern

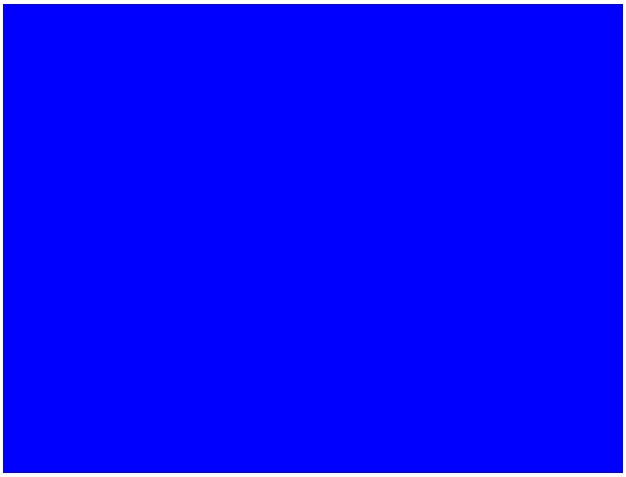


Figure 6. Blue Pattern

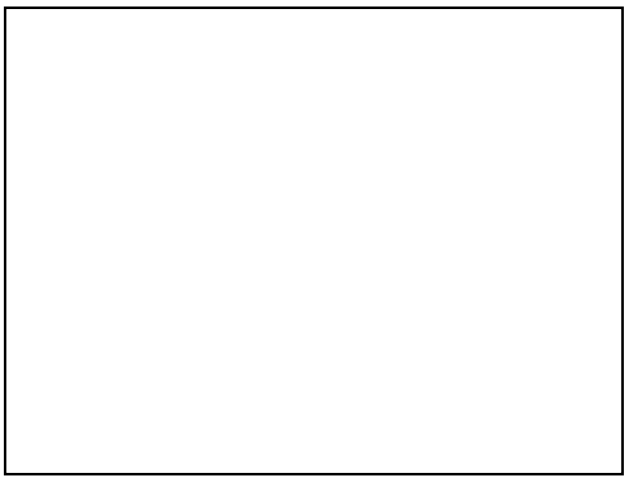


Figure 7. Full White

Figure 8. Full Black

Figure 9. Gary 30 Pattern

Figure 10. Blue 60 Pattern

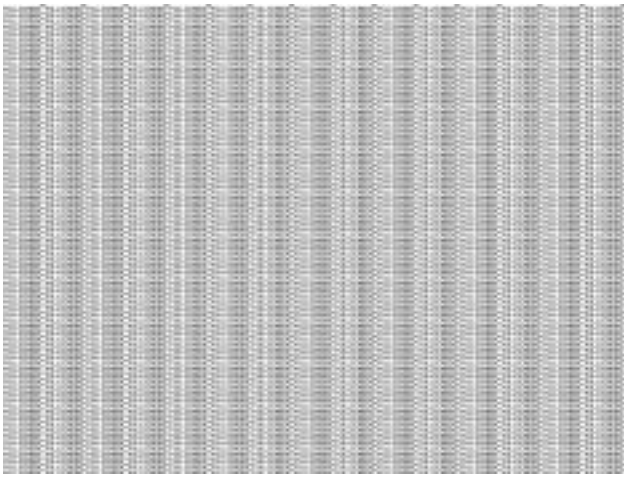


Figure 11. Text Pattern

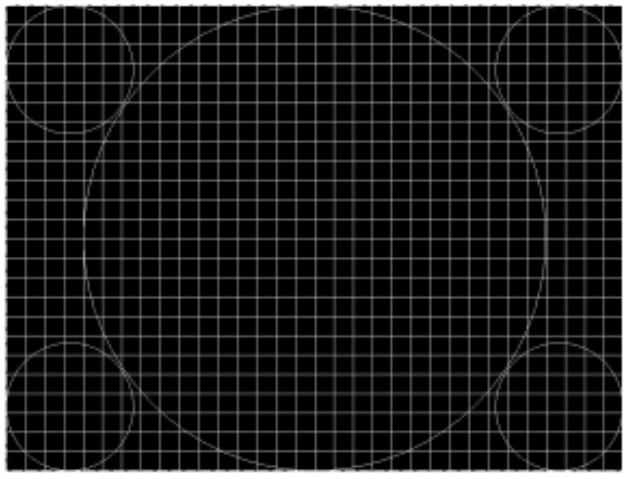


Figure 12. Boundary Frame

Video & Audio Signal :

Item	Test Content	Specification	Remark
1	Composite Video	The input signal has to display without color abnormal. The Video selection of OSD	
2	S-Video	The input signal has to display without color abnormal.	
3	Component Video	The input signal has to display without color abnormal.	
4	HDTV	The input signal has to display without color abnormal.	

4-5 Inspection Procedure

Elevator Function :

- Please check and ensure the function of elevator works well.
- If not, please return the unit to repair area.

Keypad Function (Including Remote Control) :

- Please check and ensure the control function of keypad works well.
- If not, please return the unit to repair area.

Reset :

Please press "Menu" button on the projector panel to enter "Reset all" function. This action will allow you to erase all end user's settings and restore the original factory settings. Then choose "YES" and press "Enter" to see if it works.

Frequency and Tracking :

Test Signal : 1280*1024 @ 75Hz

Test Pattern : Fine Line Moire Pattern

- Check and see if image sharpness and focus are well performed.
- If not, readjust by following steps.
    1. Select "Frequency" function to adjust the total pixel number of pixel clock in one line period. (Refer to Chapter 3-1 Equipment Needed, item 4)
    2. Then select "Phase" function and use right or left button to adjust the value to minimize video flicker. (Refer to Chapter 3-1 Equipment Needed, item 5)

R, G, B and white color contrast :

Test Signal : 1280*1024 @ 75Hz

Test Pattern : 64 RGBW scale pattern

- Please check and ensure if each color is normal and distinguishable.
- If not, please return the unit to repair area.

Screen Uniformity :

Test Signal : 1280*1024 @ 75Hz

Test Pattern : Full white pattern

- Please check and ensure the unit is within the spec. (65% Minimum)
- If not, please return the unit to repair area.

Dead pixel (Bright pixel) :

Test Signal : 1280*1024 @ 75Hz

Test Pattern : Full black pattern

- Please check and ensure the unit is within the spec. (Cannot accept any bright pixel)
- If not, please return the unit to repair area.

Dead pixel (Dark pixel) :

Test Signal : 1280*1024 @ 75Hz

Test Pattern : Full white pattern

- Please check and ensure the unit is within the spec.
  The number of dark pixels cannot exceed 8 pixels.
- If not, please return the unit to repair area.

Blemish (Bright) :

Test Signal : 1280*1024 @ 75Hz

Test Pattern : Full black and Gray 30 patterns

- Please check and ensure the unit is within the spec.
  (The bright blemish should not be seen under Gray 30 pattern)
- If out of spec, please return the unit to repair area.

Blemish (Dark) :

Test Signal : 1280*1024 @ 75Hz

Test Pattern : Full white and Blue 60 patterns

- Please check and ensure the unit is within the spec.
  (The dark blemish should not be seen under Blue 60 pattern)
- If out of spec, please return the unit to repair area.

Focus :

Test Signal : 1280*1024 @ 75Hz

Test Pattern : Text pattern

- Please check and ensure the unit is within the spec.
  (The text in the corner should be shown clearly)
- If not, please return the unit to repair area.

Boundary :

Test Signal : 1280*1024 @ 75Hz

Test Pattern : Boundary frame pattern

- Please check and ensure the unit is within the spec.
  (The horizontal and vertical position of image should be adjustable to be the screen frame.)
- If not, please return the unit to repair area.

Video :

Test Signal : Composite video, S-Video and Component video

Test Pattern : NTSC, PAL, SECAM

- Please check and ensure the unit can display the video signal without color abnormal or image abnormal issue.
- If not, please return the unit to repair area.

HDTV :

Test Signal : HDTV signal

Test Pattern : 480i, 480p, 720p, 1080i

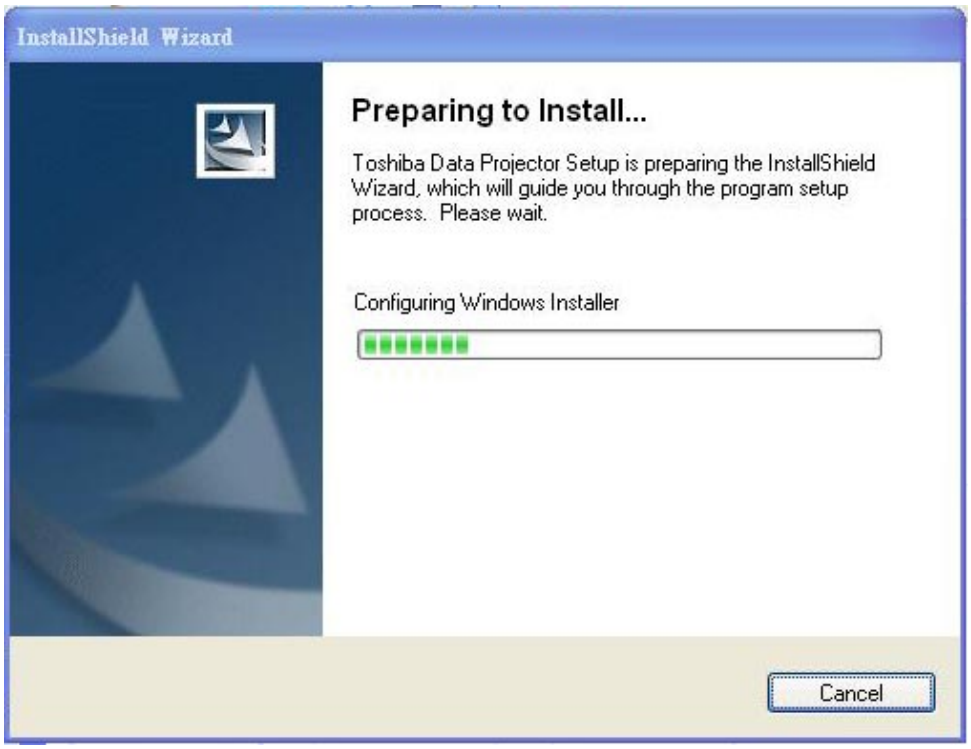
- Please check and ensure the unit can display the HDTV signal without color abnormal or image abnormal issue.
- If not, please return the unit to repair area.

4-6 Wireless Testing Procedure (For TW90 and SW80)

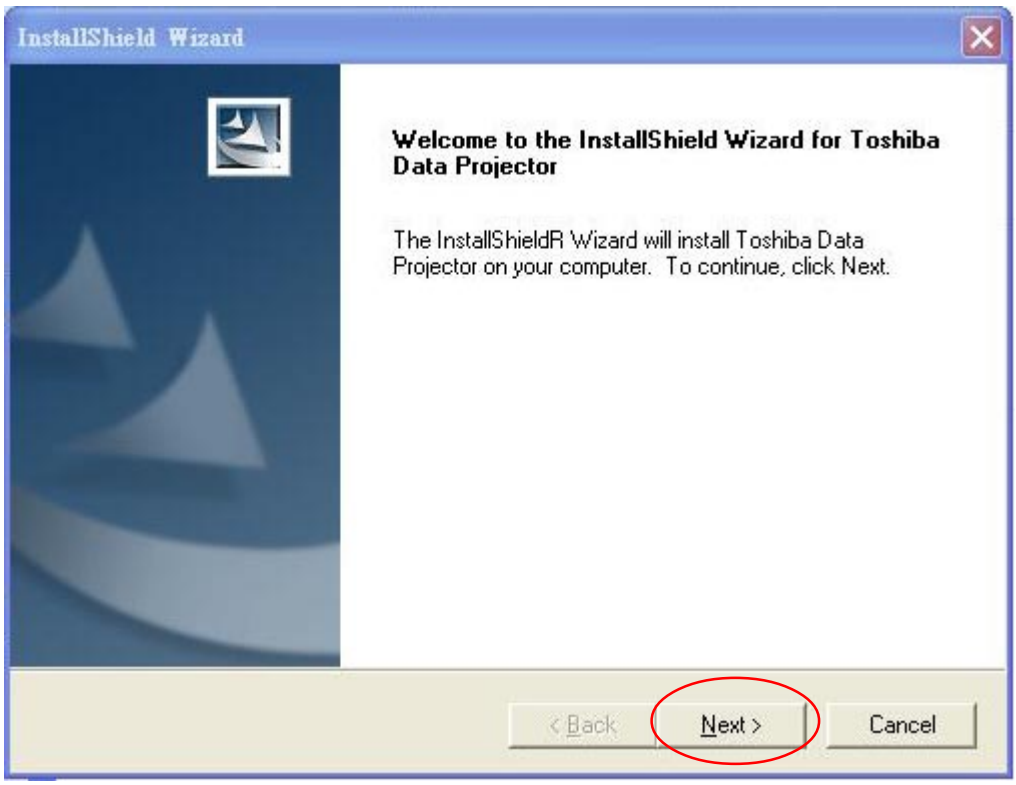
- Software : Wireless Utility

4-6.1 Wireless Setup Procedure

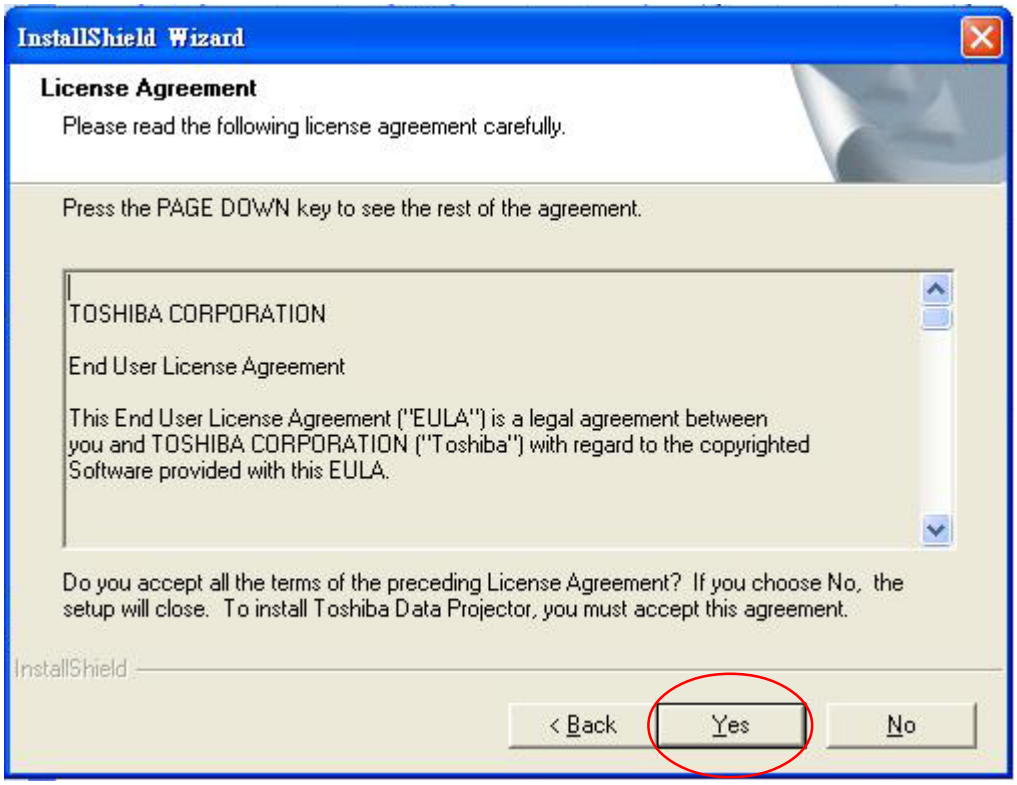
1. Press “Setup” icon to execute the program.


InstallShield Wizard
Preparing to Install...
Toshiba Data Projector Setup is preparing the InstallShield Wizard, which will guide you through the program setup process. Please wait.
Configuring Windows Installer
Cancel

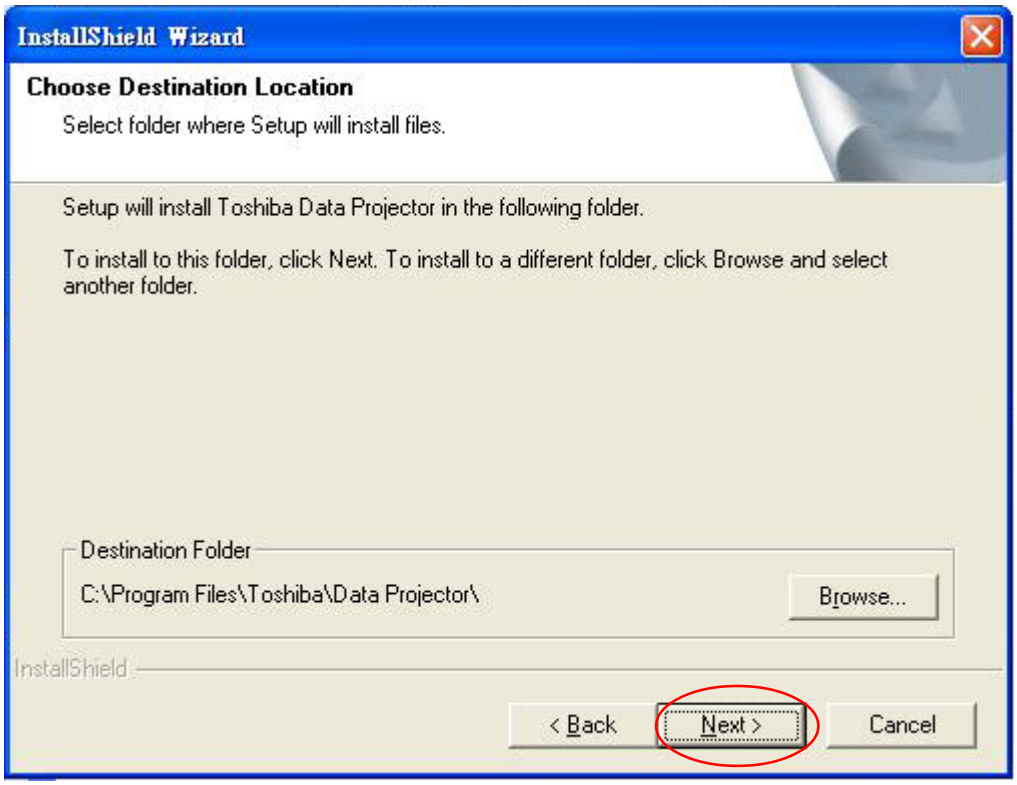
2. Press “Next” icon.

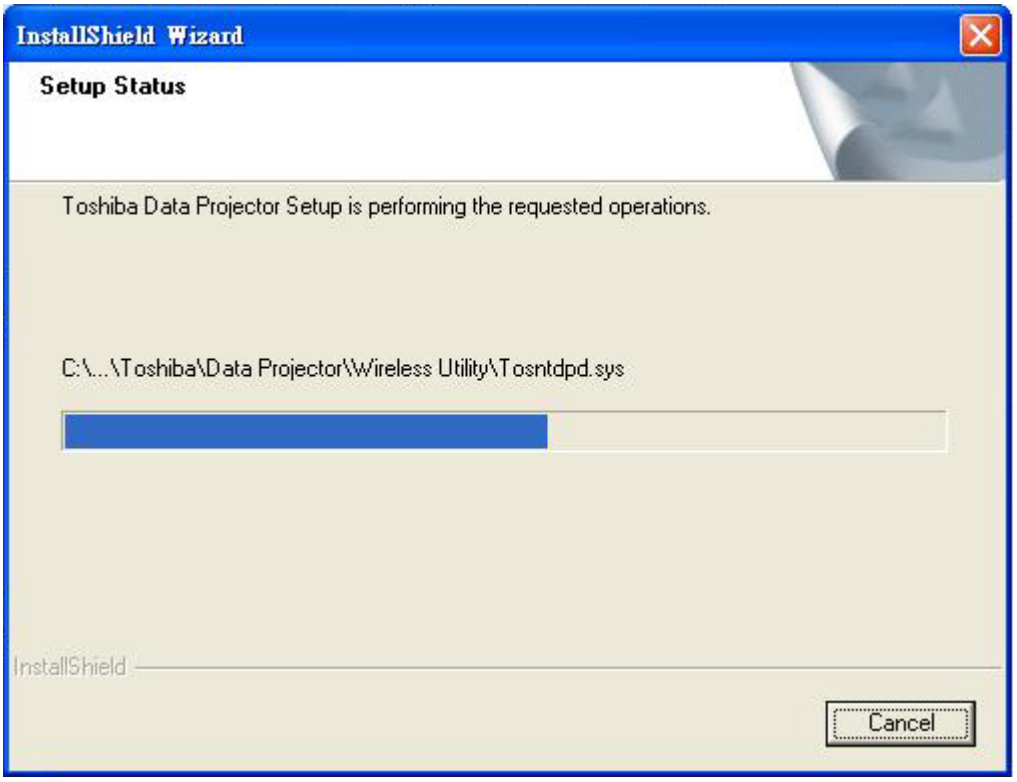

InstallShield Wizard
Welcome to the InstallShield Wizard for Toshiba Data Projector
The InstallShieldR Wizard will install Toshiba Data Projector on your computer. To continue, click Next.
< Back
Next >
Cancel

3. Press “Yes” icon.


InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
Press the PAGE DOWN key to see the rest of the agreement.
TOSHIBA CORPORATION
End User License Agreement
This End User License Agreement ("EULA") is a legal agreement between you and TOSHIBA CORPORATION ("Toshiba") with regard to the copyrighted Software provided with this EULA.
Do you accept all the terms of the preceding License Agreement? If you choose No, the setup will close. To install Toshiba Data Projector, you must accept this agreement.
InstallShield
< Back
Yes
No

4. Press “Next” icon.


InstallShield Wizard
Choose Destination Location
Select folder where Setup will install files.
Setup will install Toshiba Data Projector in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\Toshiba\Data Projector\
Browse...
InstallShield
< Back
Next >
Cancel

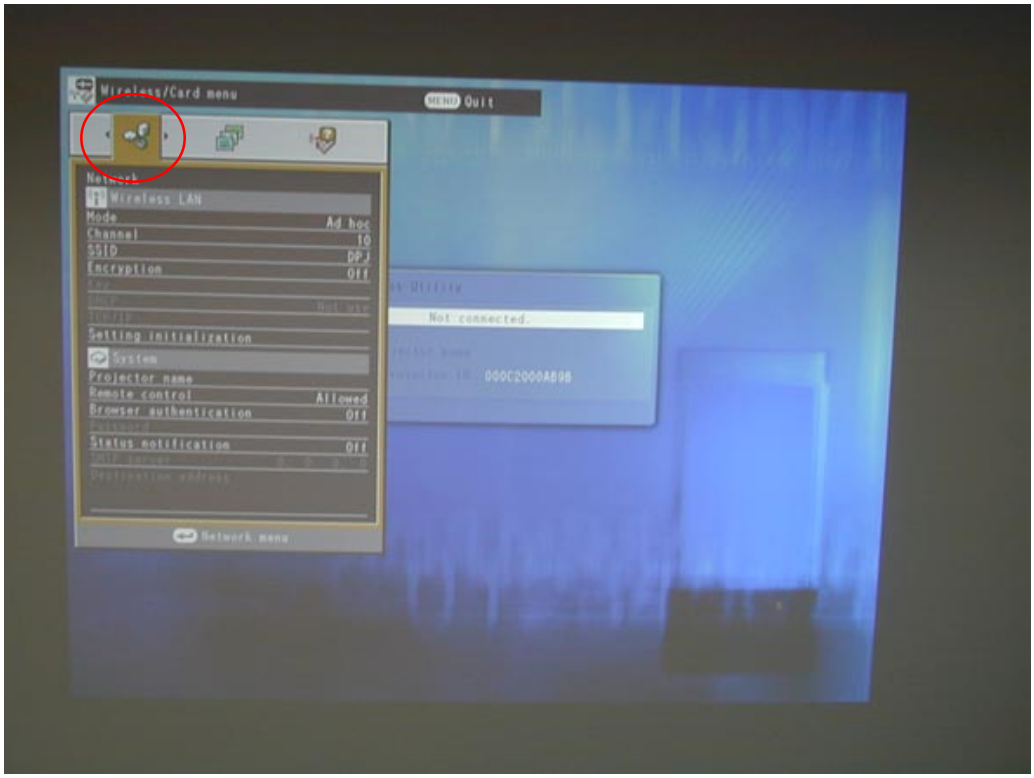


5. Choose “Yes, I want to restart my computer now”, then press “Finish” icon.

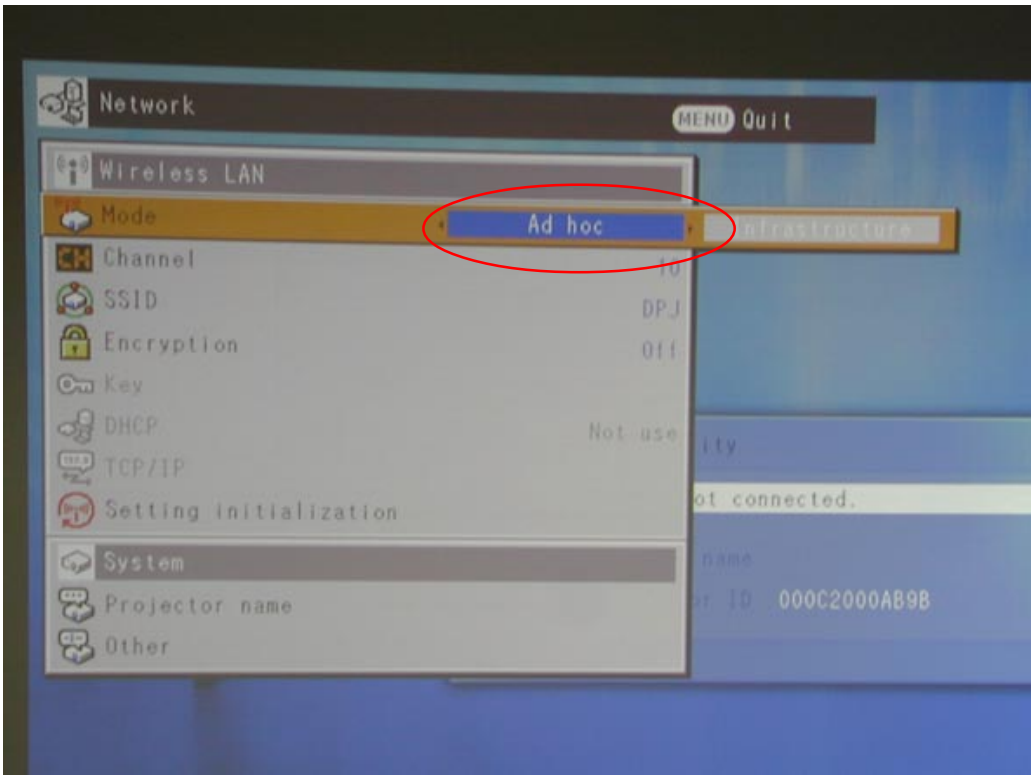
InstallShield Wizard
InstallShield Wizard Complete
The InstallShield Wizard has successfully installed Toshiba Data Projector. Before you can use the program, you must restart your computer.
Yes, I want to restart my computer now.
No, I will restart my computer later.
Remove any disks from their drives, and then click Finish to complete setup.
< Back
Finish
Cancel

4-6.2 Projector Setup Procedure

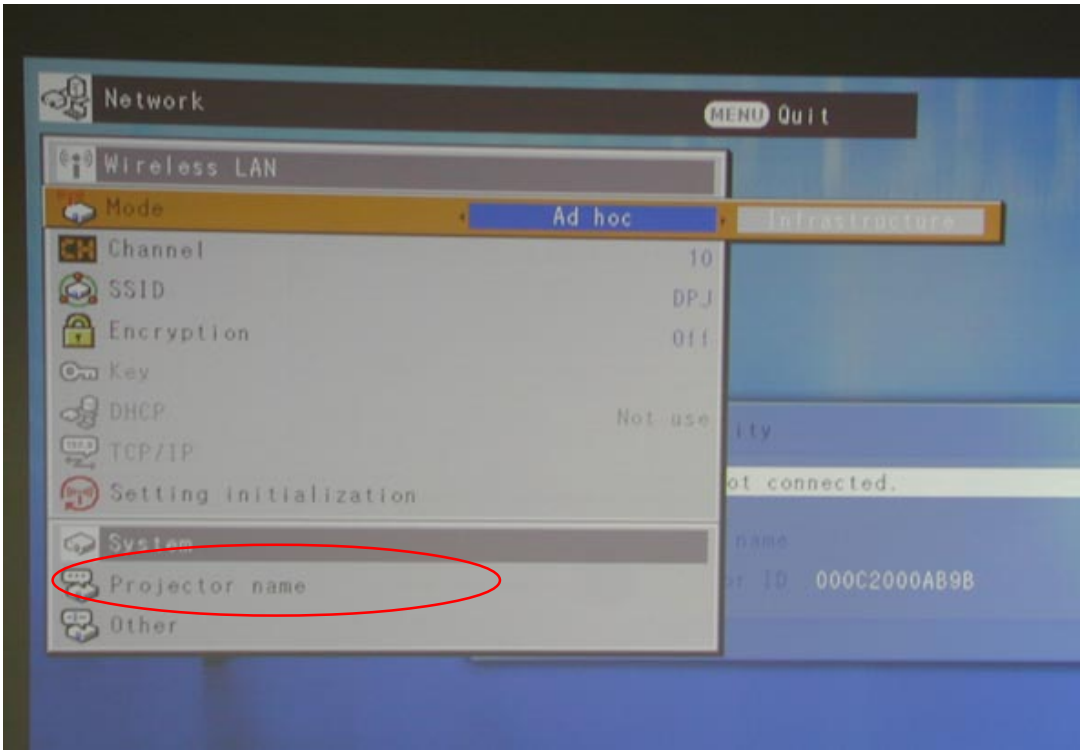
1. Press “Menu” twice, then into “Wireless setting” mode.



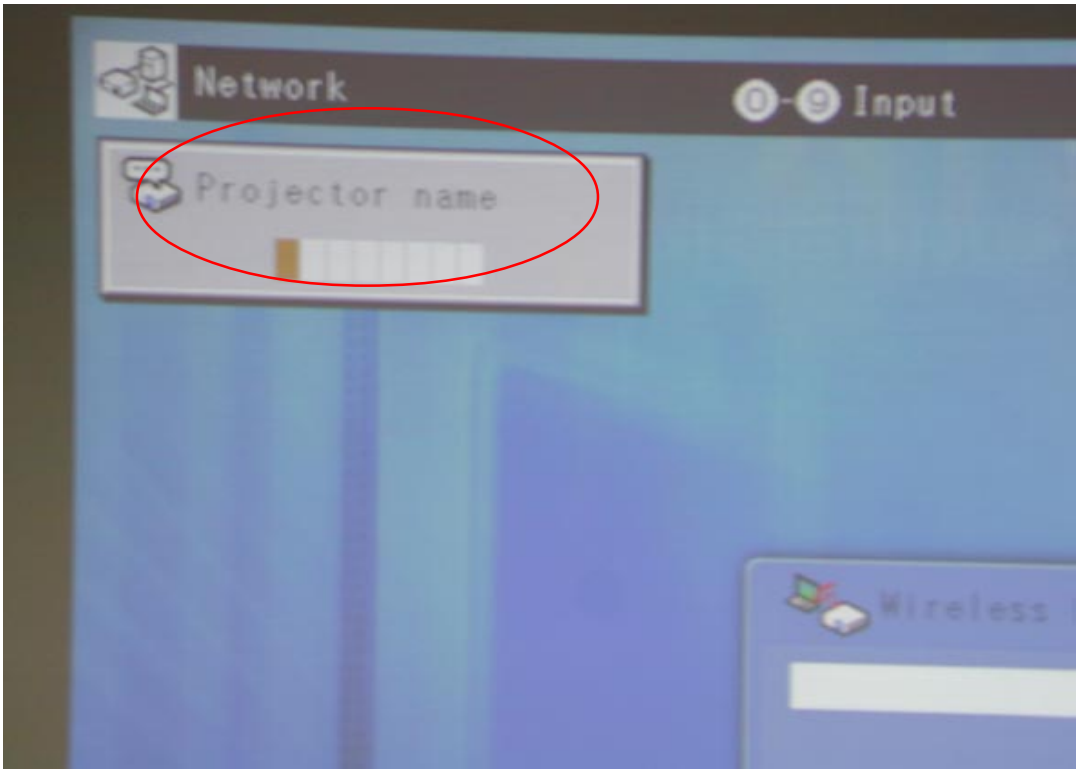
2. Choose “Ad hoc” function.



3. Choose “Projector name” function.



4. Key-in any English name when the “Projector name” appears on the screen.

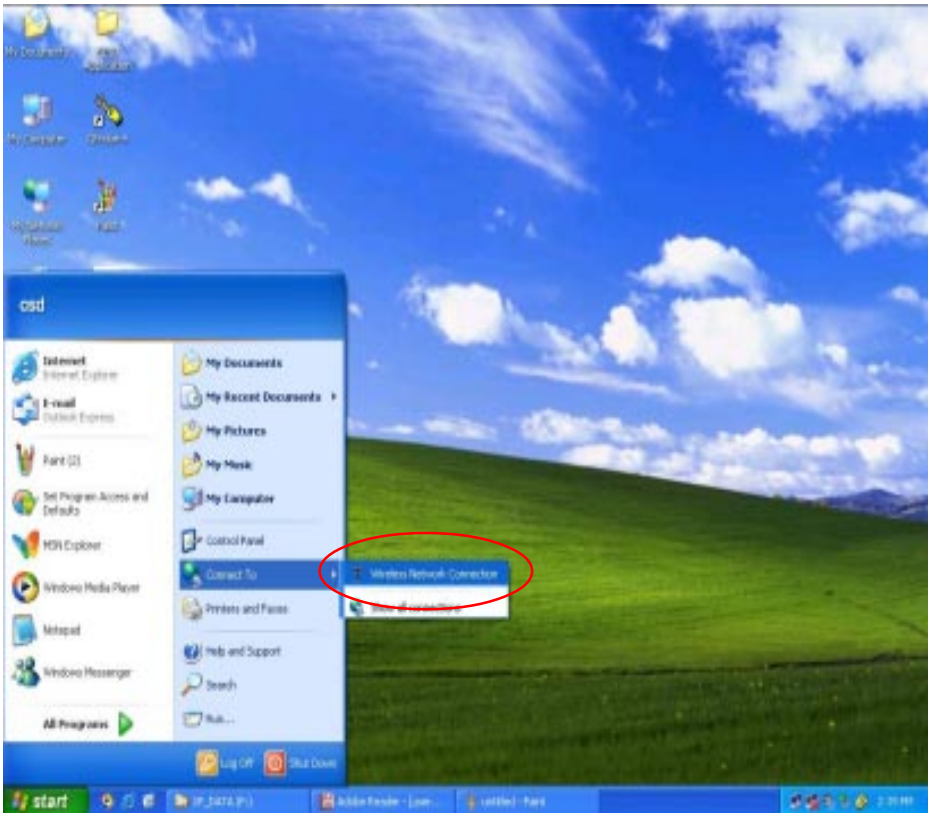


Note :

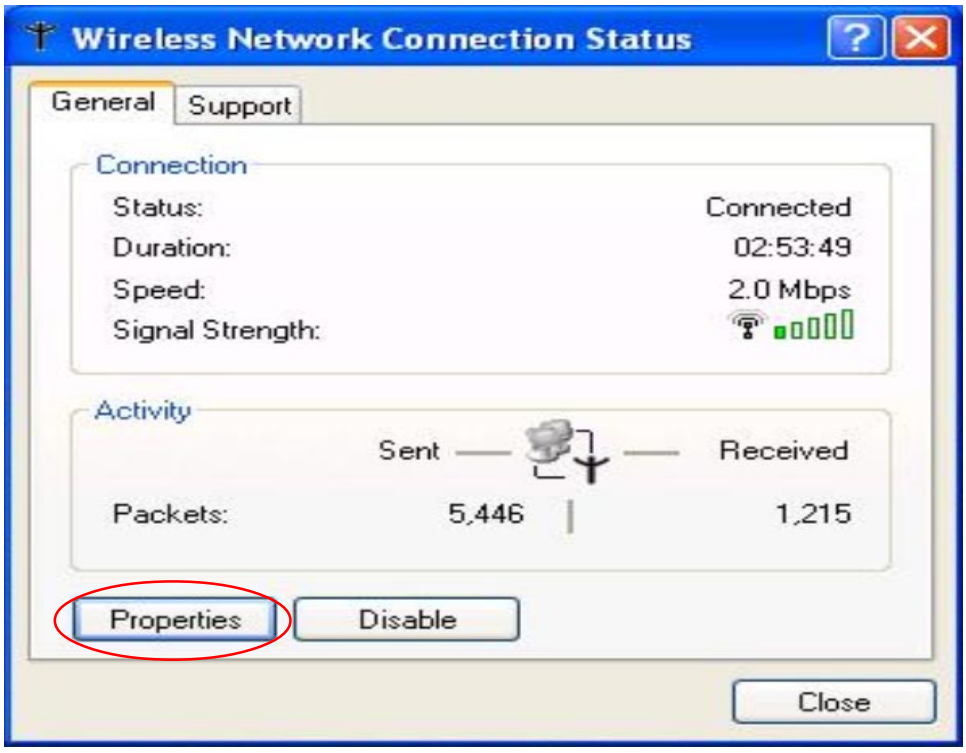
1. “Ad hoc” function is P to P(Point to Point) transmission.
2. The “Projector Name” can be keyed in by the Remote Control.

4-6.3 Network Setup Procedure

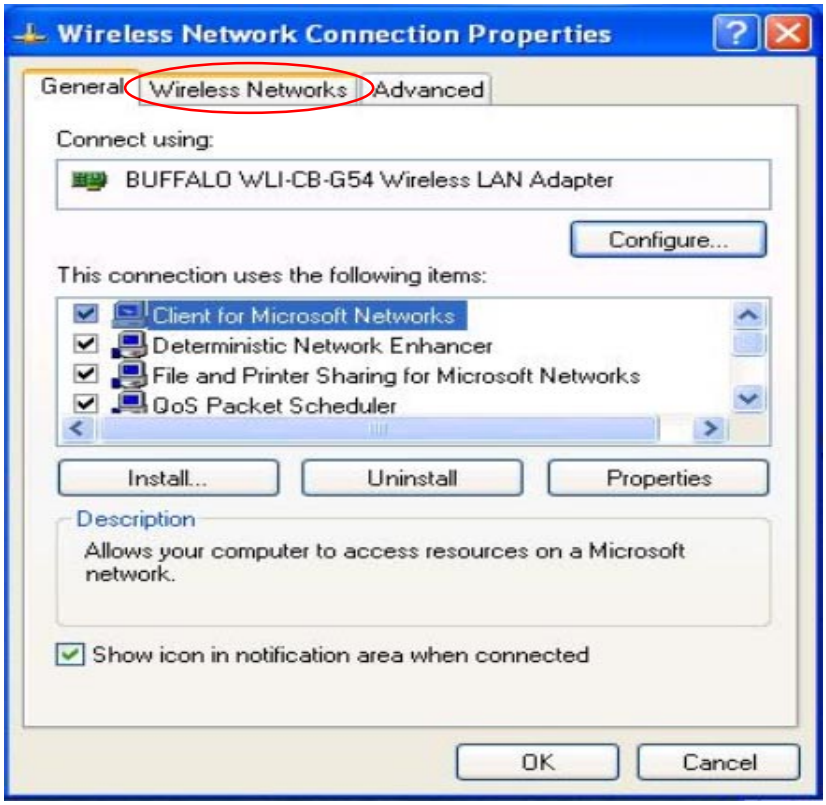
1. Press “Wireless Network Connection”.



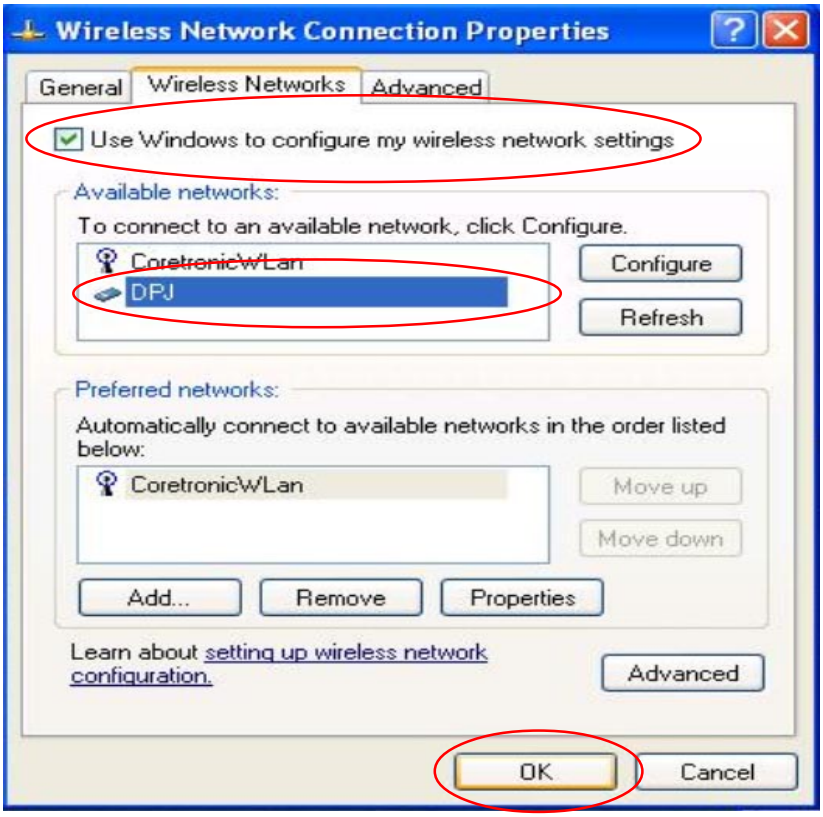
2. Click “Properties”.



3. Select “Wireless Networks”.

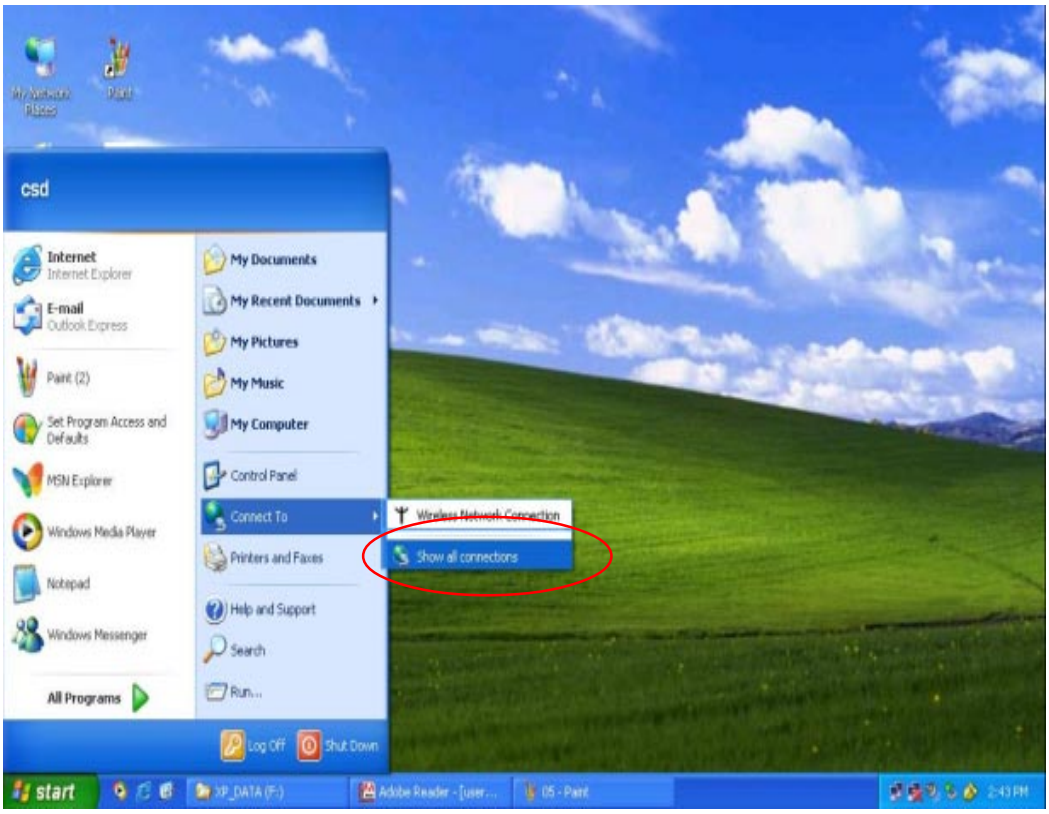


4. Click “DPJ” and then press “Ok”.

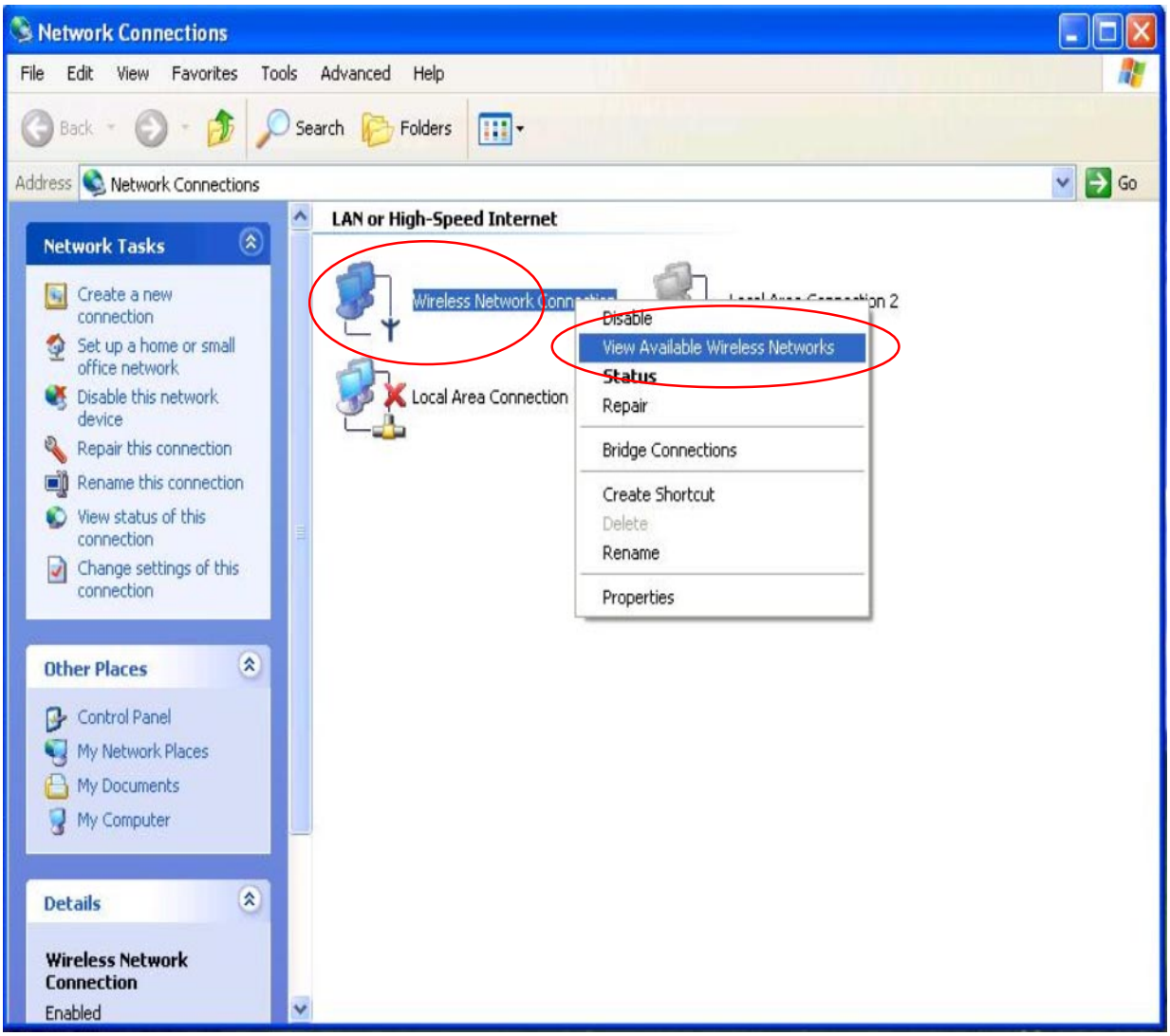


5. Click “Close”.

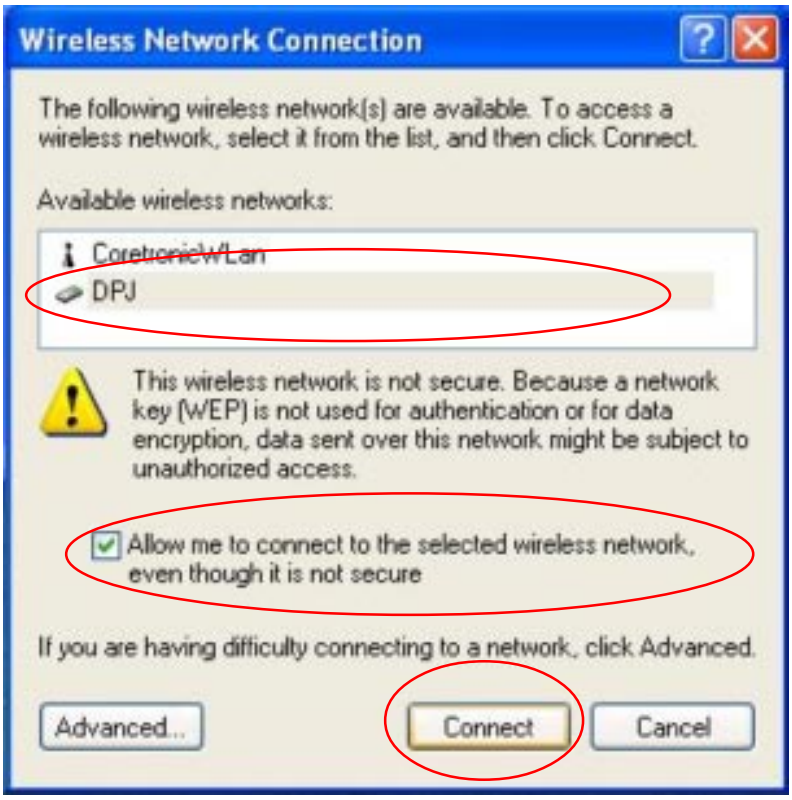
6. Select “Show all connections”.



7. Right click “Wireless Network Connection” and select “View Available Wireless Networks”.

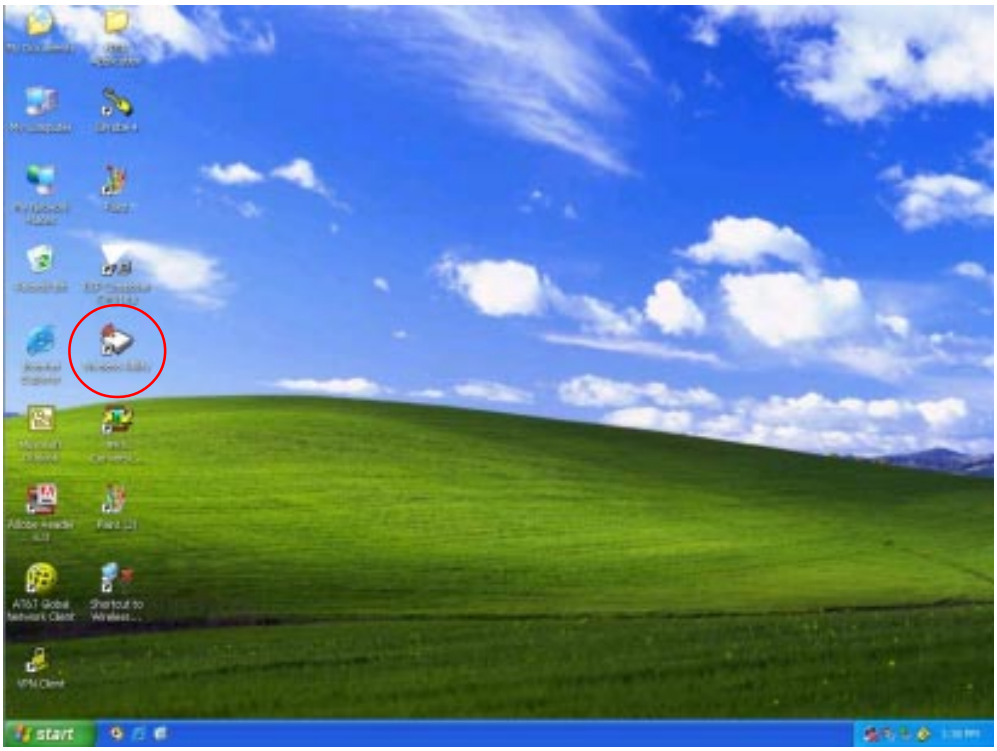


8. Choose “DPJ” and check the below box “Allow me to connect to.....”, and then press “Connect”.

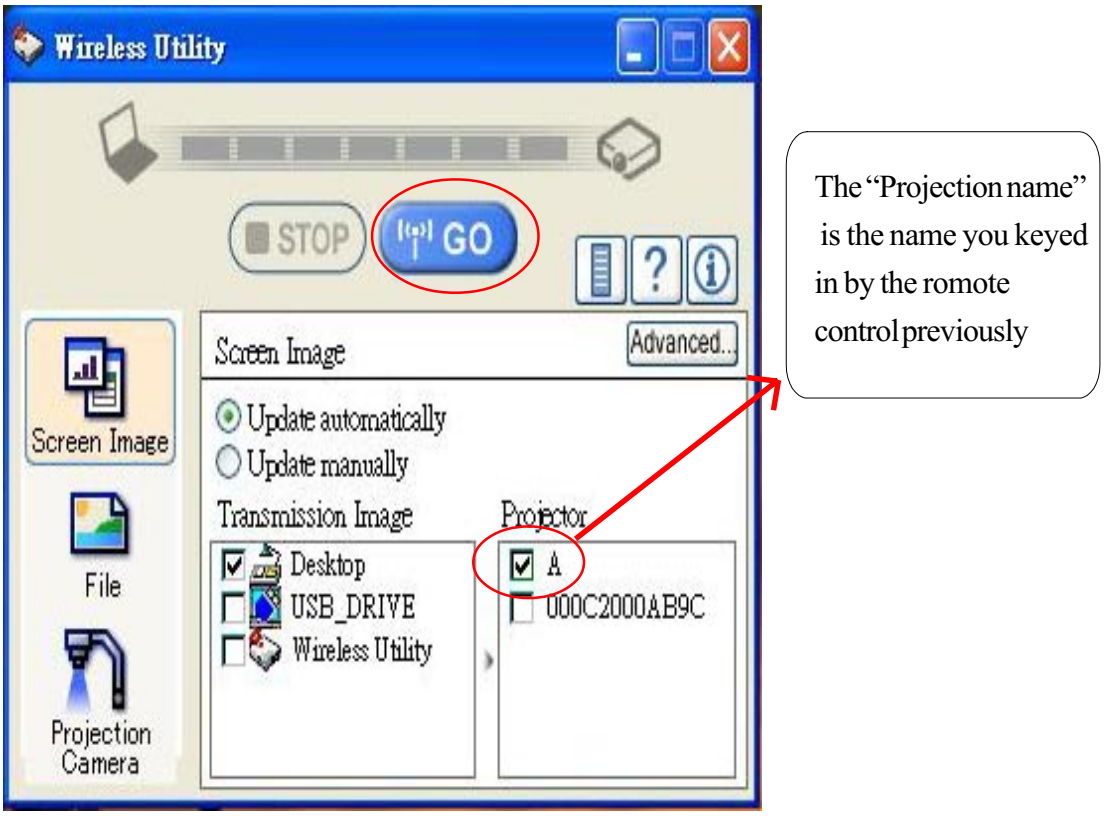

Wireless Network Connection
The following wireless network(s) are available. To access a wireless network, select it from the list, and then click Connect.
Available wireless networks:
DPJ
This wireless network is not secure. Because a network key (WEP) is not used for authentication or for data encryption, data sent over this network might be subject to unauthorized access.
Allow me to connect to the selected wireless network, even though it is not secure
If you are having difficulty connecting to a network, click Advanced.
Advanced...
Connect
Cancel

9. If the wireless connection is well established, the below message will appear on the task bar.

10. Execute "Wireless Utility" program.



11. Choose the Projector name, and then press "GO" button to link the Projector. Then you will find the projectors and your PC(or laptop) are wireless connected.



4-7 Camera Setup Procedure (For T91 and S81)

4-7.1 Equipment Needed

- T91 Projector * 1
- Camera * 1
- VGA Cable * 1 (Special)

4-7.2 Setup Procedure

1. Connect Camera to the 2nd VGA port of T91 by VGA Cable.

2. Power on the Projector. Press “Input” button on the Keypad.

Note : Projector will find Image function from Camera automatically.

Chapter 5

Firmware Upgrade Procedure

5-1 Equipment Needed

Hardware :

– Firmware Cable
– PC
– T80 / T90 / T91 / TW90 / MT200 / S80 / S81/ SW80 Projector

Firmware Cable

Software :

– DLP composer
– DDP2000~1.img

Environment :

– Windows 98 / 2000 / XP

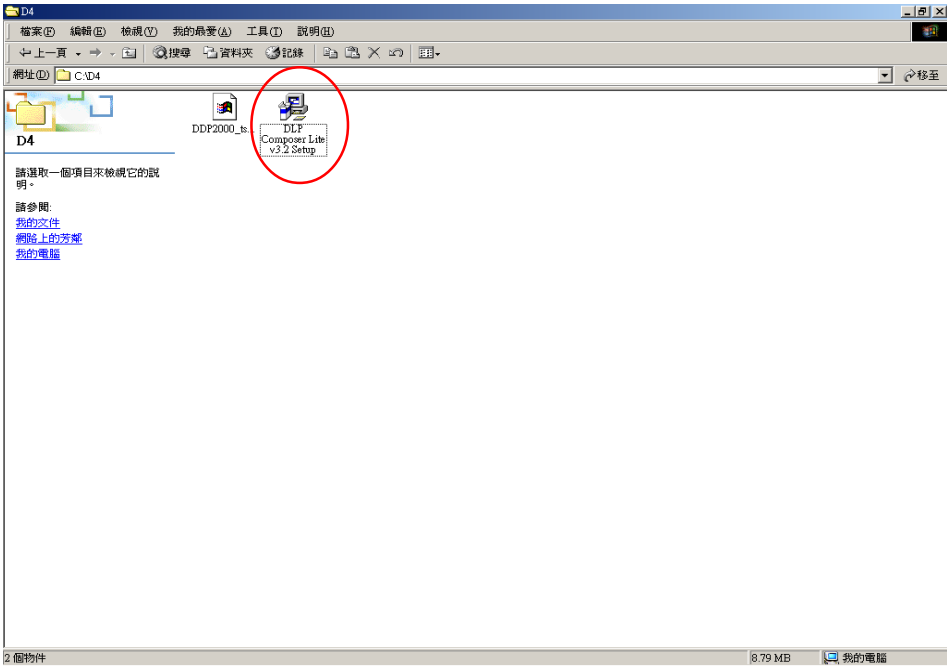
5-2 Setup Procedure

1. Connect Firmware cable to Projector and COM1 or COM2 (Serial port) of PC.

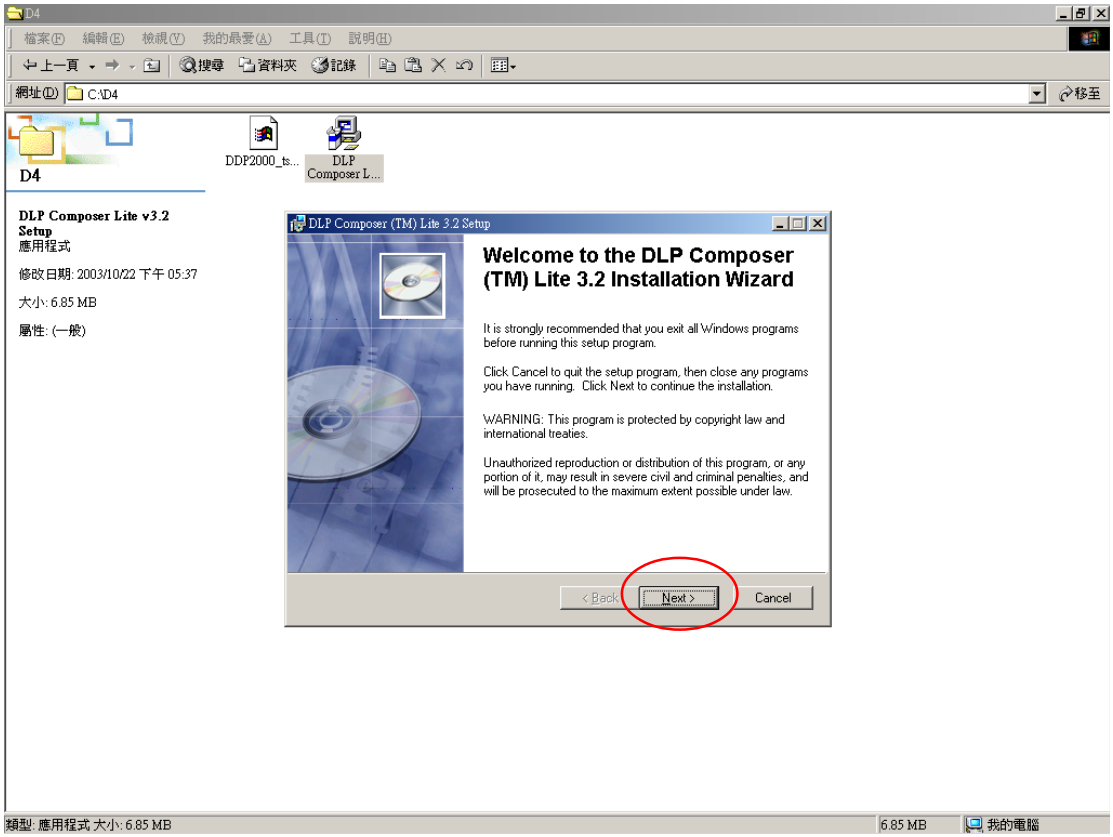
Note: If you use DLP Composer Lite V3.2, you have to connect the firmware cable to **COM2** of PC. If you use DLP Composer Lite V3.6, you can connect the firmware cable to**COM1** or **COM2**.

DLP composer Setup :

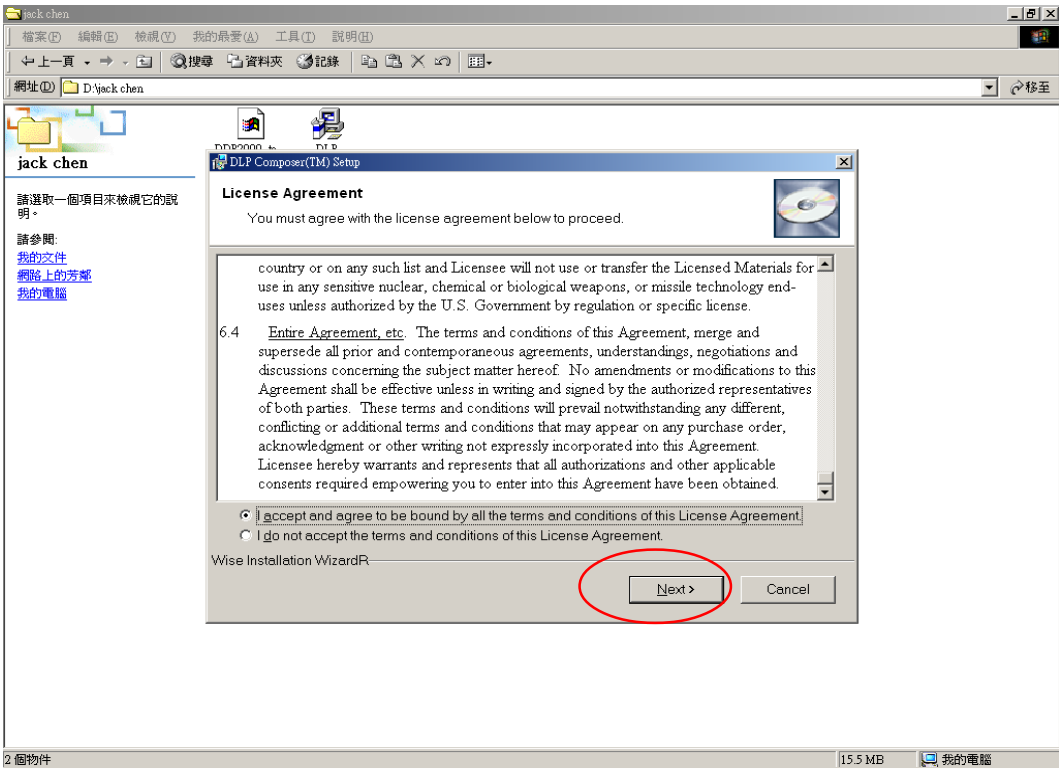
1. Execute “DLP Composer Lite Setup.exe” to start the setup procedure.



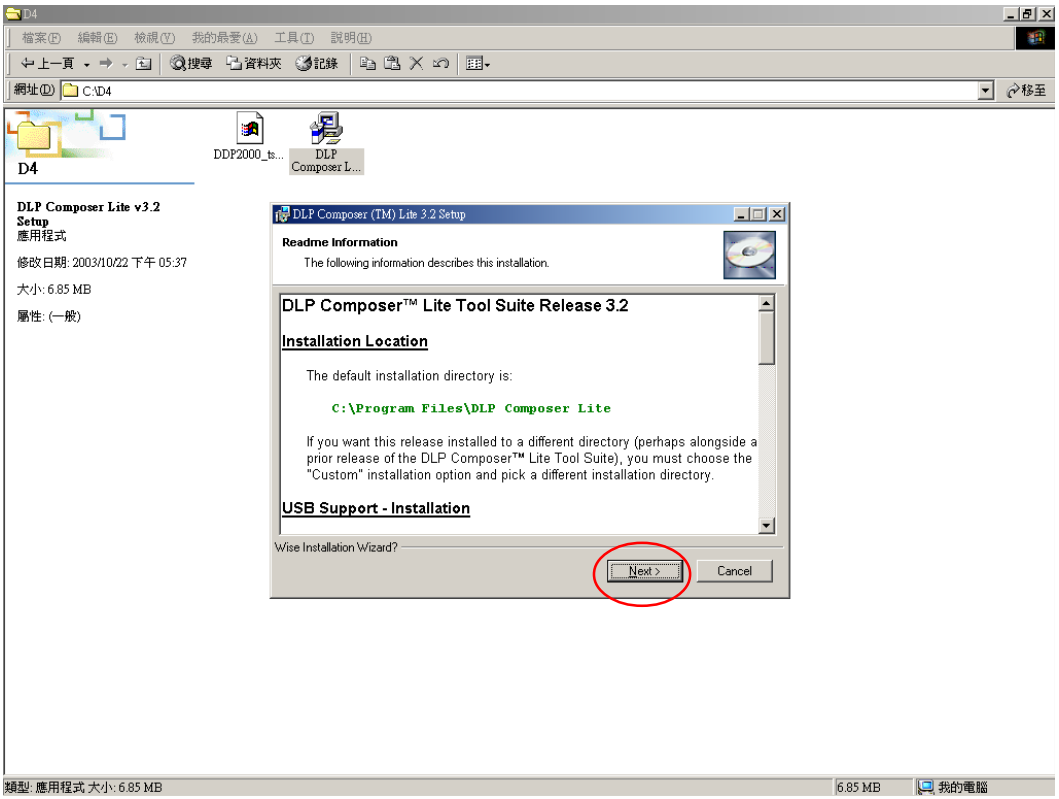
2. Press “Next” button.


D4
DDP2000_ts...
DLP Composer L...
DLP Composer Lite v3.2 Setup
應用程式
修改日期: 2003/10/22 下午 05:37
大小: 6.85 MB
屬性: (一般)
DLP Composer (TM) Lite 3.2 Setup
Welcome to the DLP Composer (TM) Lite 3.2 Installation Wizard
It is strongly recommended that you exit all Windows programs before running this setup program.
Click Cancel to quit the setup program, then close any programs you have running. Click Next to continue the installation.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
< Back
Next >
Cancel
類型: 應用程式 大小: 6.85 MB
6.85 MB
我的電腦

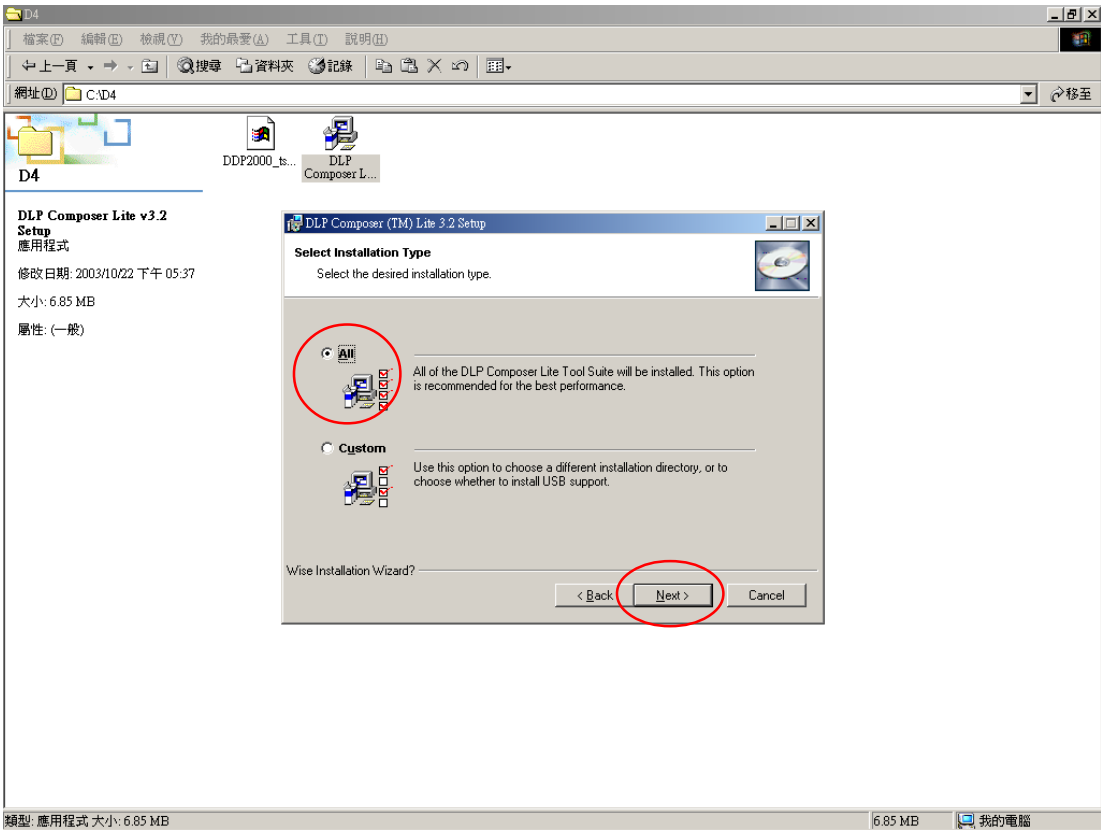
3. Choose the “I accept and agree to be bound by all the terms and conditions of this License Agreement”.
Then press “Next” button.


jack chen
DLP Composer(TM) Setup
License Agreement
You must agree with the license agreement below to proceed.
country or on any such list and Licensee will not use or transfer the Licensed Materials for use in any sensitive nuclear, chemical or biological weapons, or missile technology end-uses unless authorized by the U.S. Government by regulation or specific license.
6.4 Entire Agreement, etc. The terms and conditions of this Agreement, merge and supersede all prior and contemporaneous agreements, understandings, negotiations and discussions concerning the subject matter hereof. No amendments or modifications to this Agreement shall be effective unless in writing and signed by the authorized representatives of both parties. These terms and conditions will prevail notwithstanding any different, conflicting or additional terms and conditions that may appear on any purchase order, acknowledgment or other writing not expressly incorporated into this Agreement. Licensee hereby warrants and represents that all authorizations and other applicable consents required empowering you to enter into this Agreement have been obtained.
I accept and agree to be bound by all the terms and conditions of this License Agreement.
I do not accept the terms and conditions of this License Agreement.
Wise Installation WizardR
Next >
Cancel

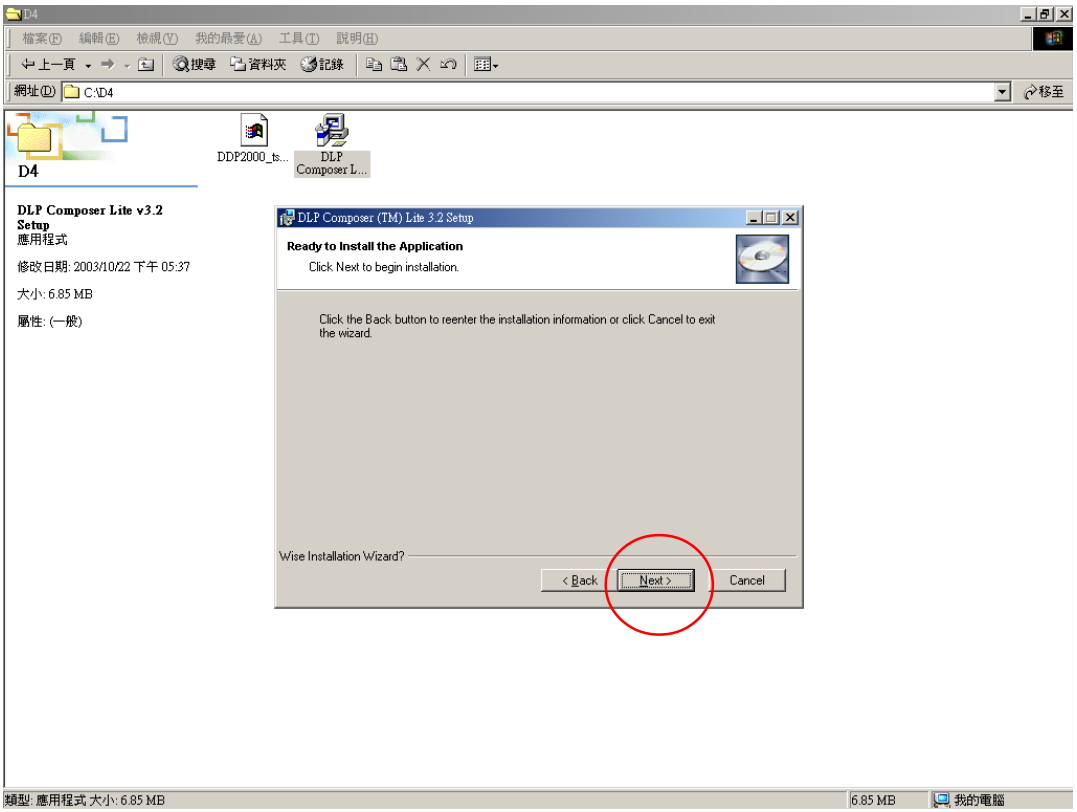
4. Press “Next” button.


D4
DDP2000_ts...
DLP Composer L...
DLP Composer Lite v3.2 Setup
應用程式
修改日期: 2003/10/22 下午 05:37
大小: 6.85 MB
屬性: (一般)
DLP Composer (TM) Lite 3.2 Setup
Readme Information
The following information describes this installation.
DLP Composer™ Lite Tool Suite Release 3.2
Installation Location
The default installation directory is:
C:\Program Files\DLP Composer Lite
If you want this release installed to a different directory (perhaps alongside a prior release of the DLP Composer™ Lite Tool Suite), you must choose the "Custom" installation option and pick a different installation directory.
USB Support - Installation
Wise Installation Wizard?
Next >
Cancel

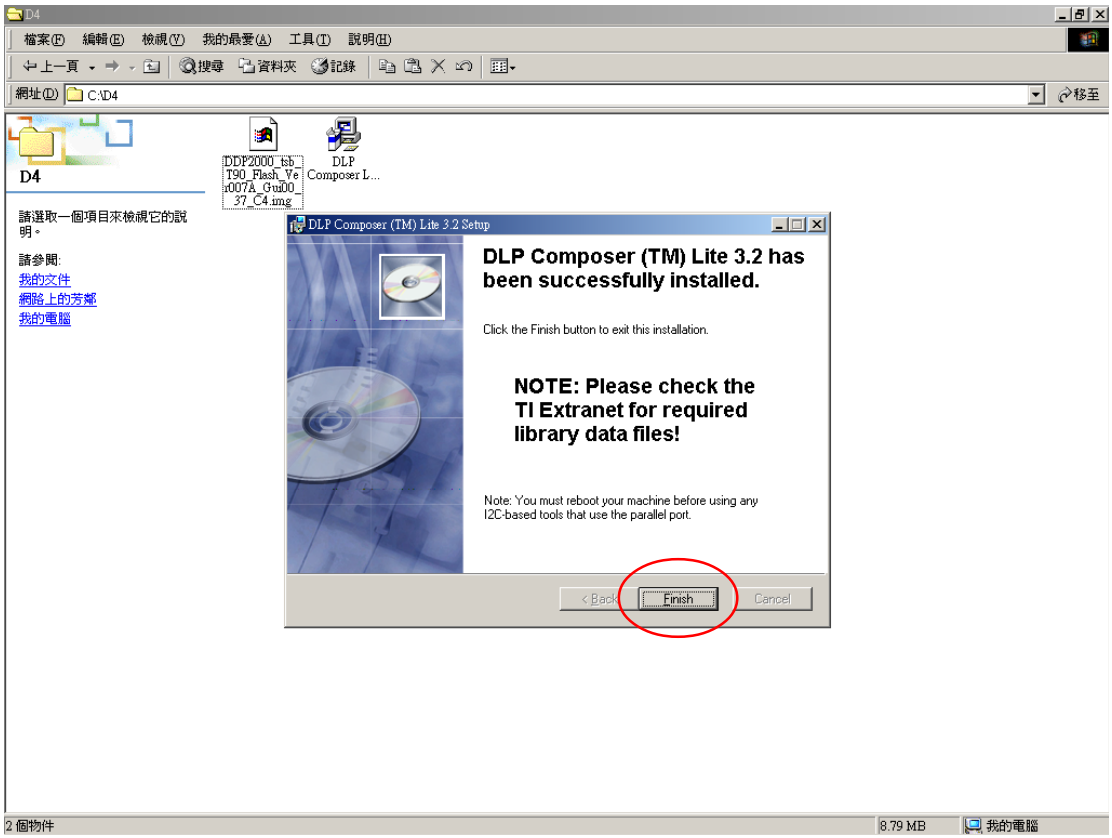
5. Choose “All” icon and then press “Next” button.


D4
DDP2000_ts...
DLP Composer L...
DLP Composer Lite v3.2 Setup
應用程式
修改日期: 2003/10/22 下午 05:37
大小: 6.85 MB
屬性: (一般)
DLP Composer (TM) Lite 3.2 Setup
Select Installation Type
Select the desired installation type.
All
All of the DLP Composer Lite Tool Suite will be installed. This option is recommended for the best performance.
Custom
Use this option to choose a different installation directory, or to choose whether to install USB support.
Wise Installation Wizard?
< Back
Next >
Cancel
類型: 應用程式 大小: 6.85 MB
6.85 MB
我的電腦

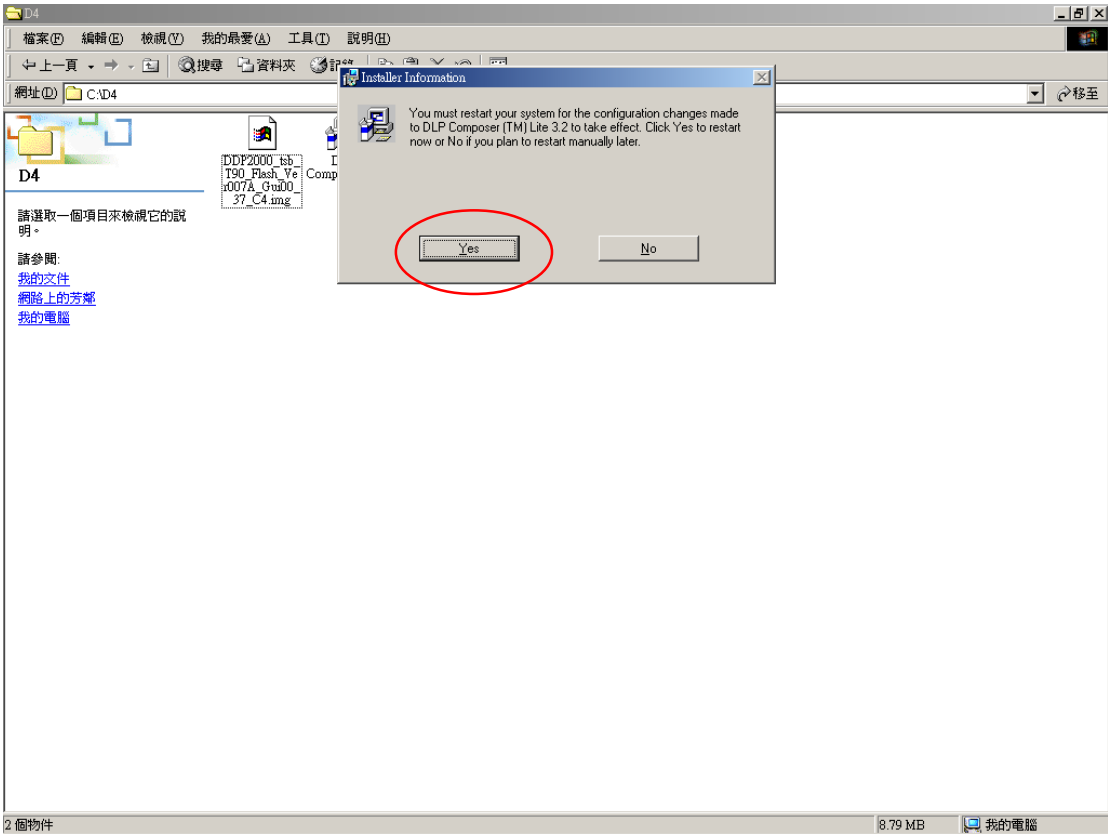
6. Press “Next” button.



7. Press “Next” button.


DLP Composer (TM) Lite 3.2 Setup
DLP Composer (TM) Lite 3.2 has been successfully installed.
Click the Finish button to exit this installation.
NOTE: Please check the TI Extranet for required library data files!
Note: You must reboot your machine before using any I2C-based tools that use the parallel port.
< Back
Finish
Cancel

8. Press “Yes” button to reboot.

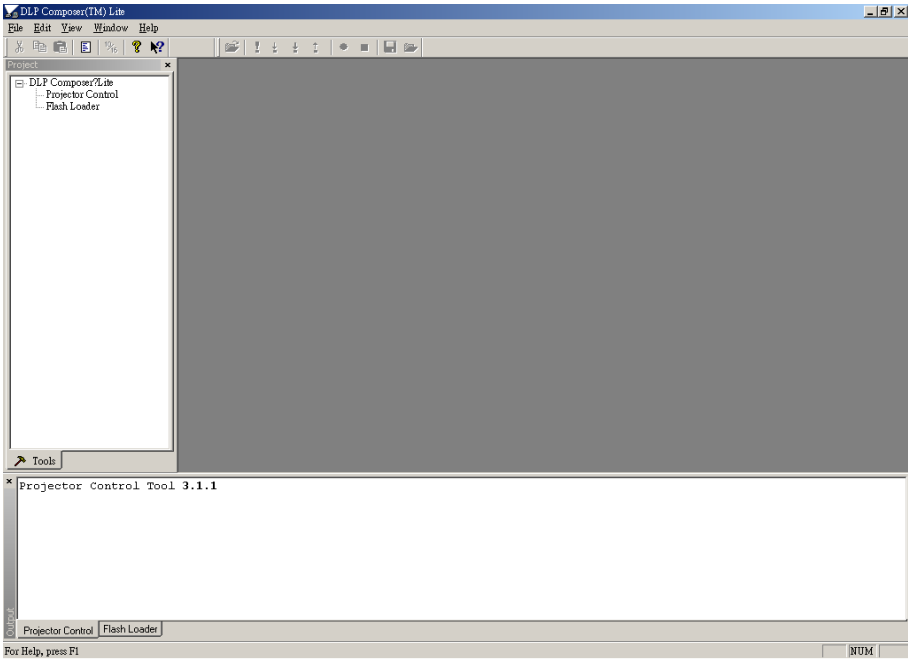

Installer Information
You must restart your system for the configuration changes made to DLP Composer (TM) Lite 3.2 to take effect. Click Yes to restart now or No if you plan to restart manually later.
Yes
No

5-3 Firmware Upgrade Procedure

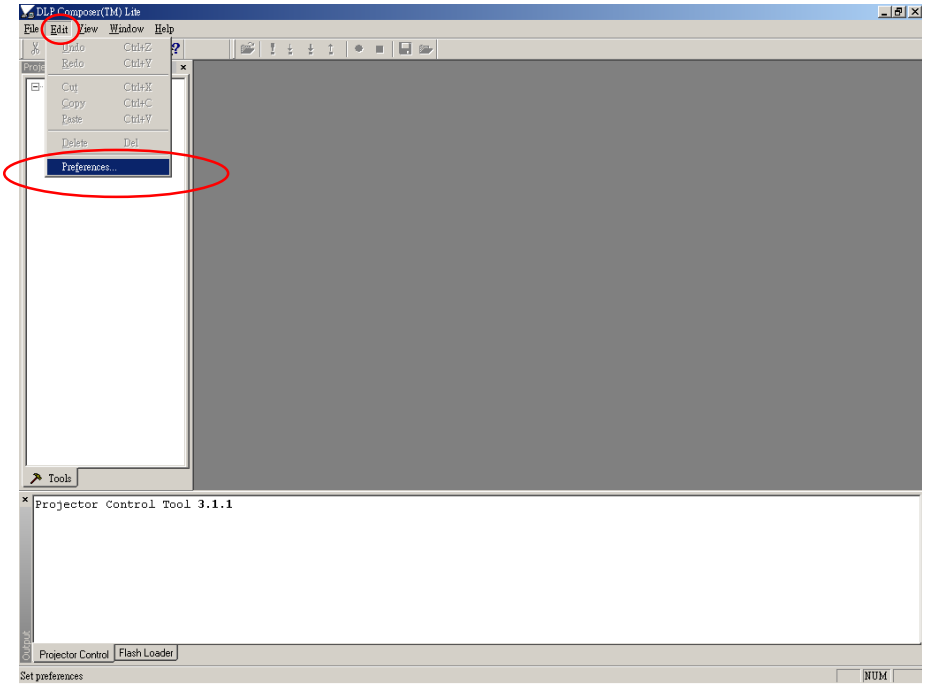
1. Press and hold “Input” and “Setup” buttons simultaneously and then power on the Projector to enter the firmware upgrade mode.

Note : If the firmware upgrade mode is activated, the LEDs of LAMP, TEMP and FAN will be blinking.

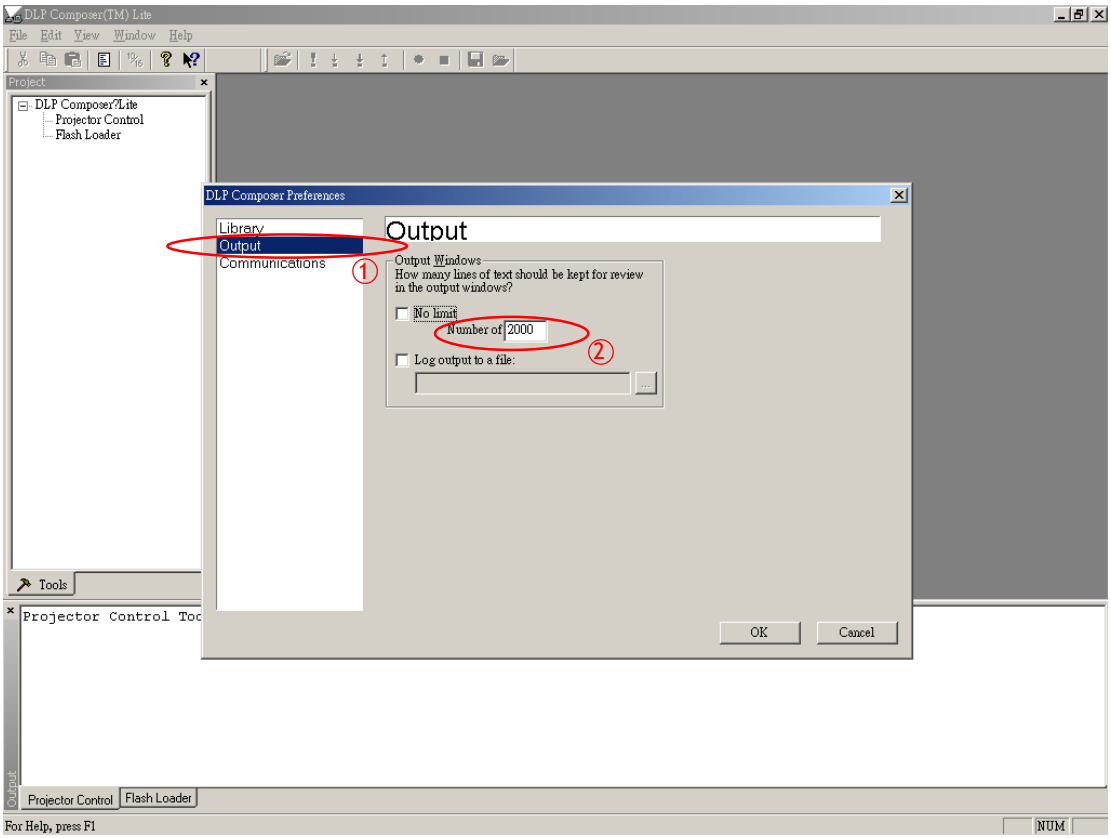
2. Execute “DLP Composer” program.



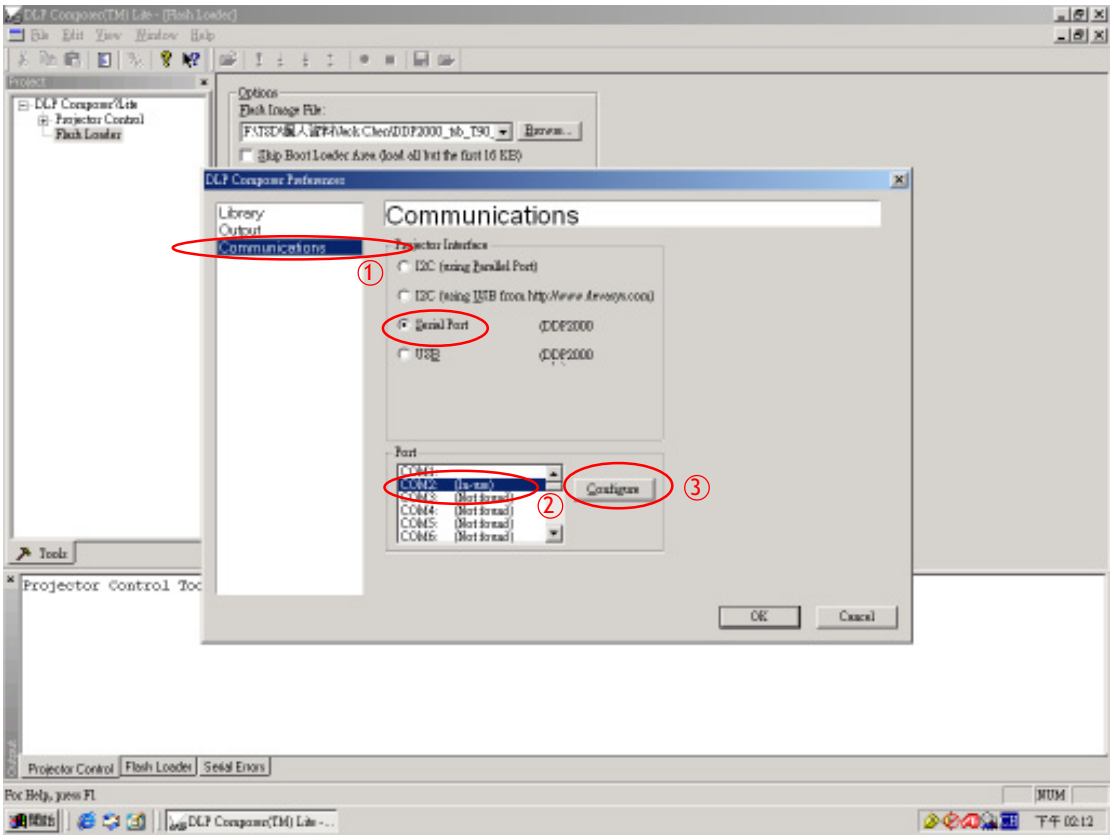
3. Choose “Edit-->Preferences” to setup Firmware upgrade status.



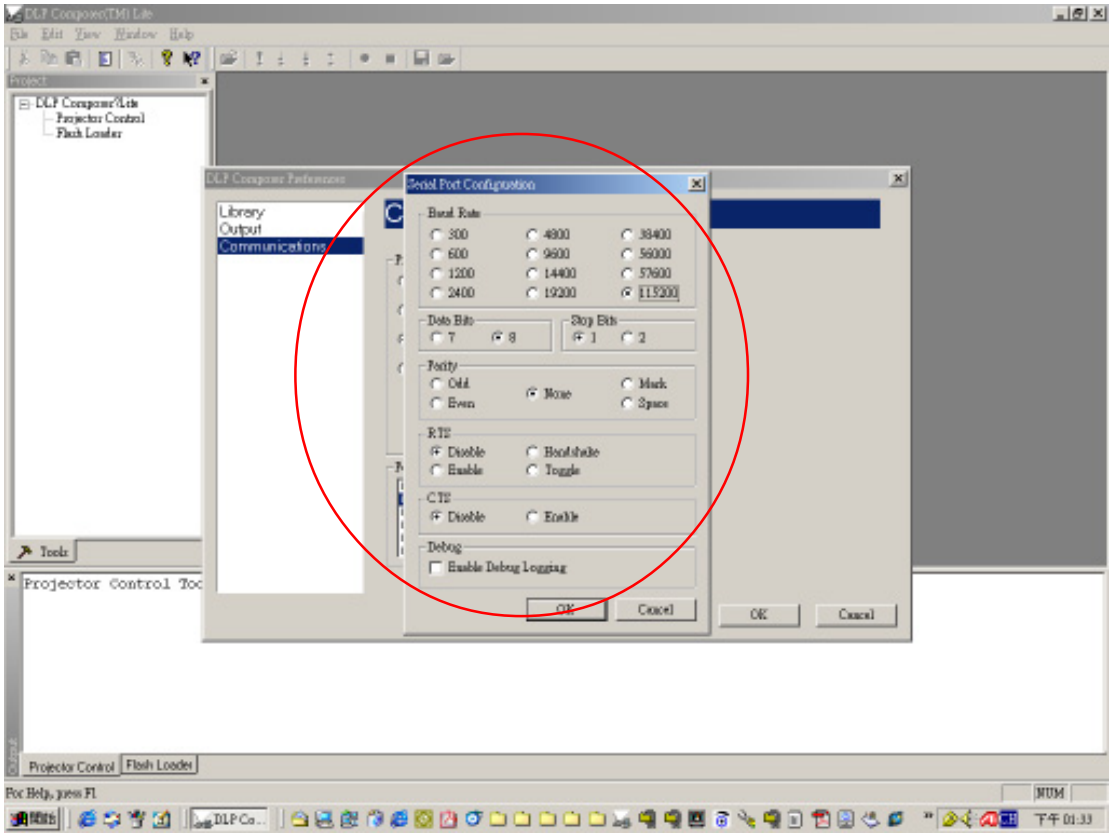
4. Choose “Output”, setting Number of is “2000”.



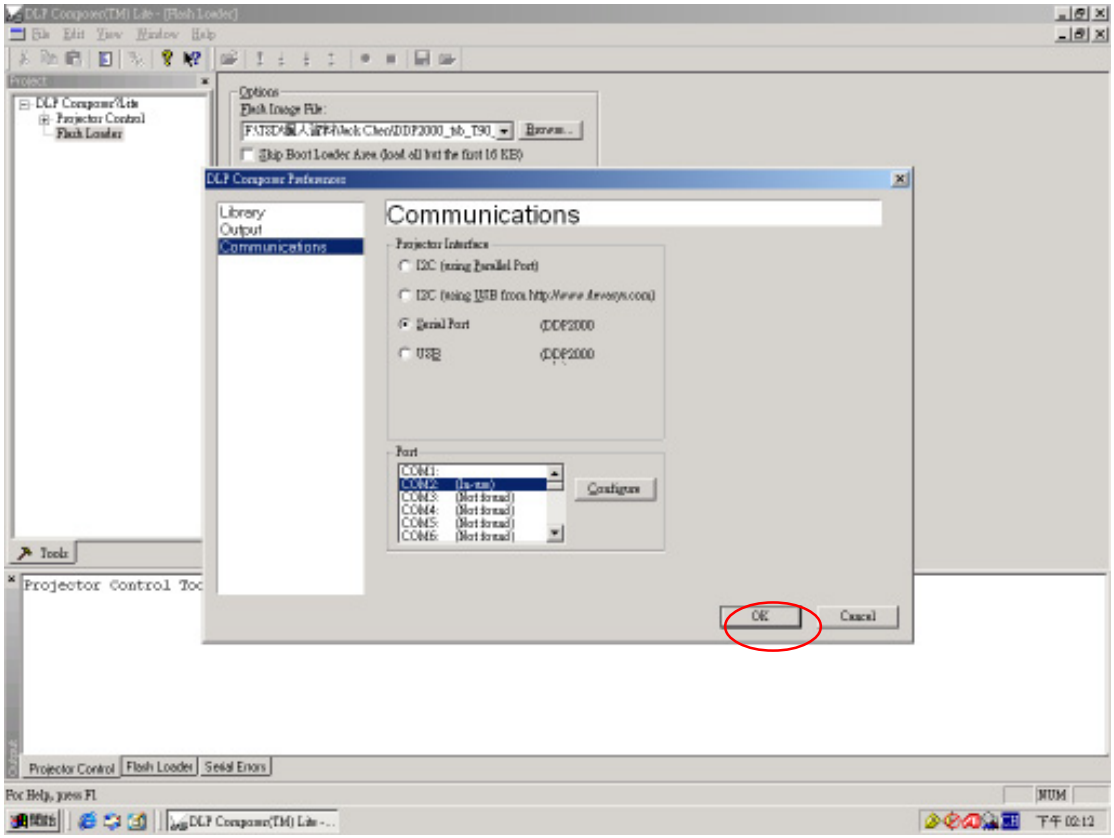
5. Choose “Communications”, setting Port is “COM2” and then press “Configure” button into the next setup procedure.



6. Setup the Baud Rate is “115200”, Data Bits is “8”, Stop Bits is “1”, Parity is “None”, RTS is “Disable” and CTS is “Disable”, then press “OK” button.



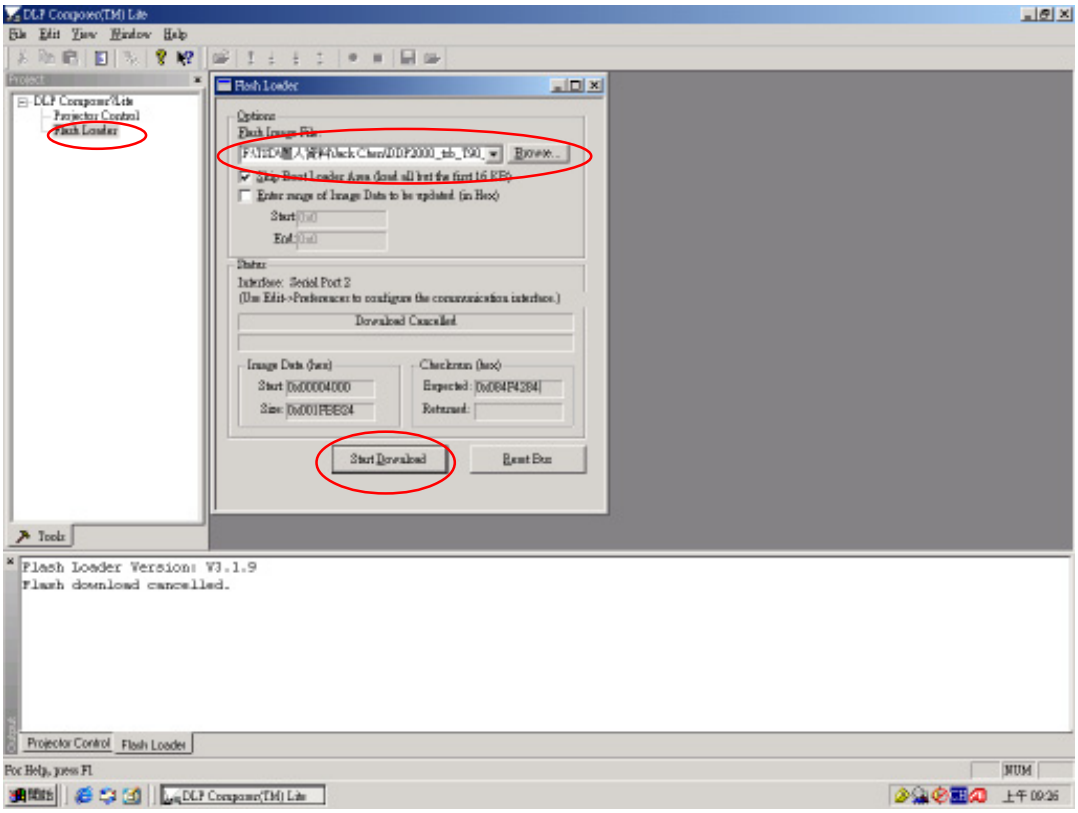
7. Come back to this layer, and then press “OK” button to execute the program.



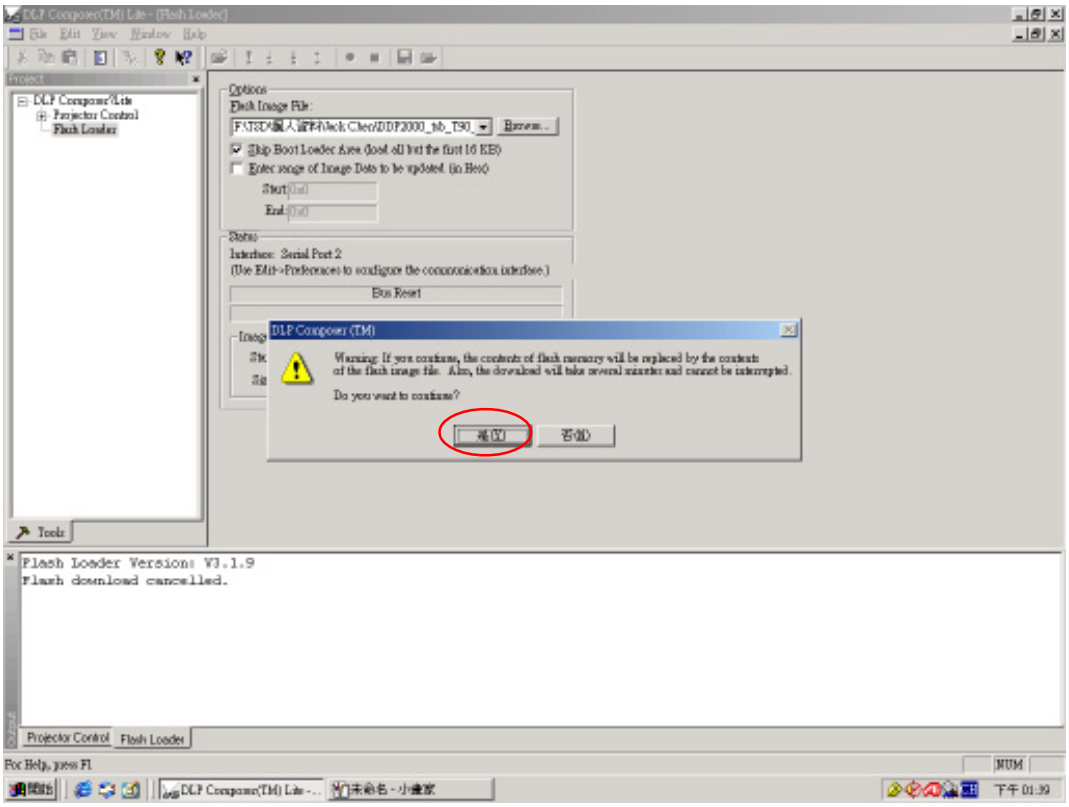
8. Click “Flash Loader.”

Choose the Firmware upgrade program from Browser.

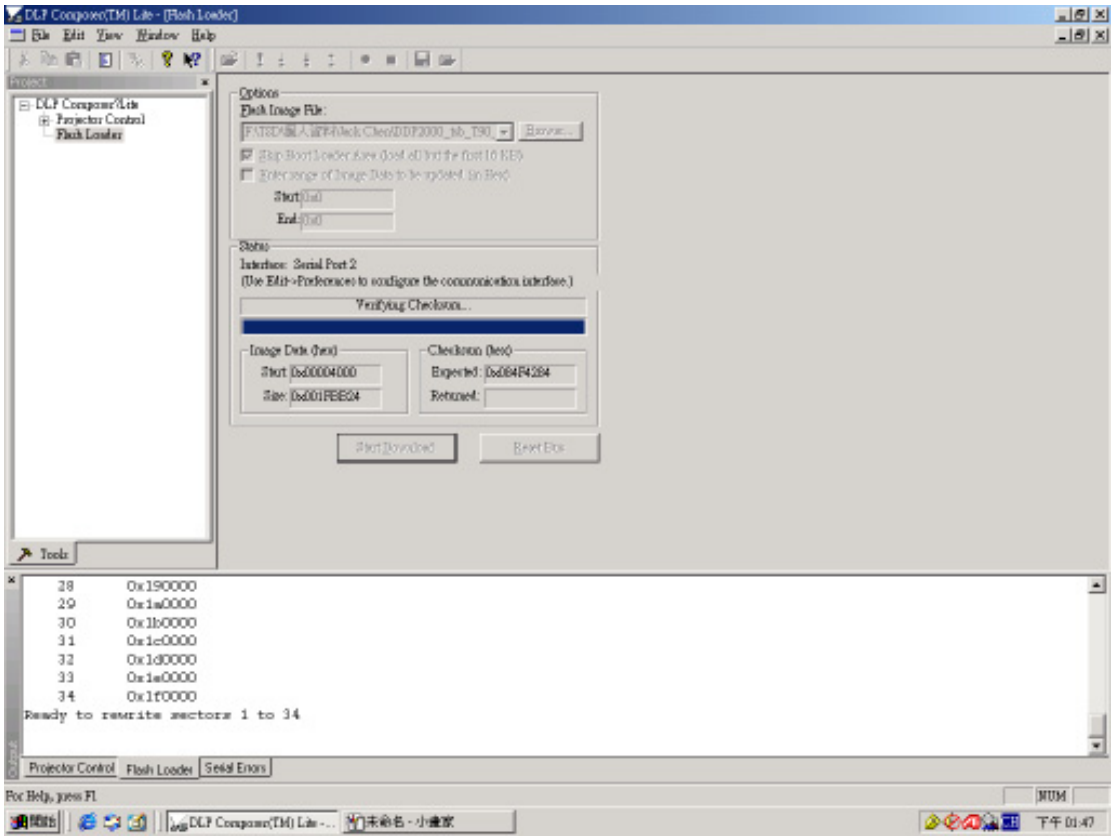
Then press “Start Download” button to execute upgrade program.



9. Press “Yes” button.



10. After the firmware upgrade is complete, power off projector, and then restart it again.



Chapter 6

EDID Upgrade Procedure (For MT200 Only)

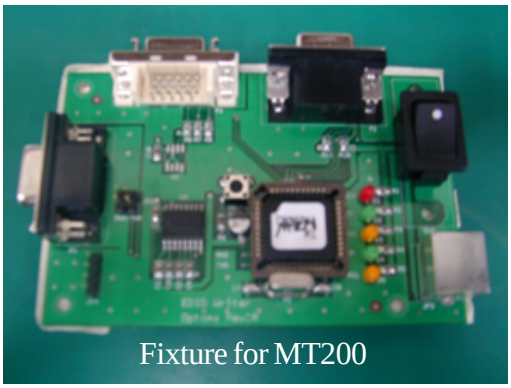
6-1 Equipment Needed

Hardware :

– Power Cord
– DVI To DFP Cable
– RS-232 Cable
– MT200 Projector
– Fixture for MT200

RS-232 Cable

6-pin Power Adapter


Fixture for MT200

DVI To DFP Cable

Software :

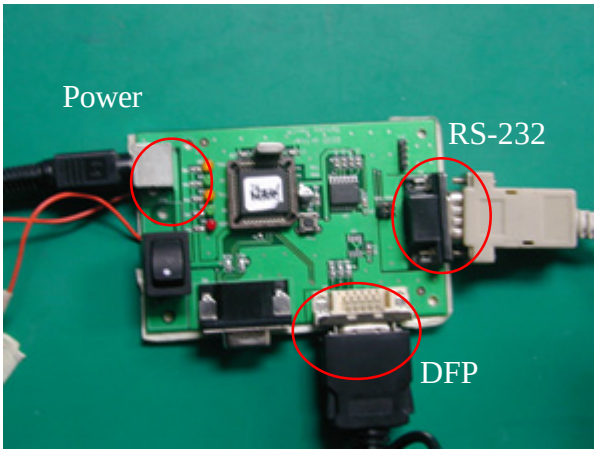
– EDID.exe
– MT_200_EDID.ini

Environment :

– Windows 98 / 2000 / XP

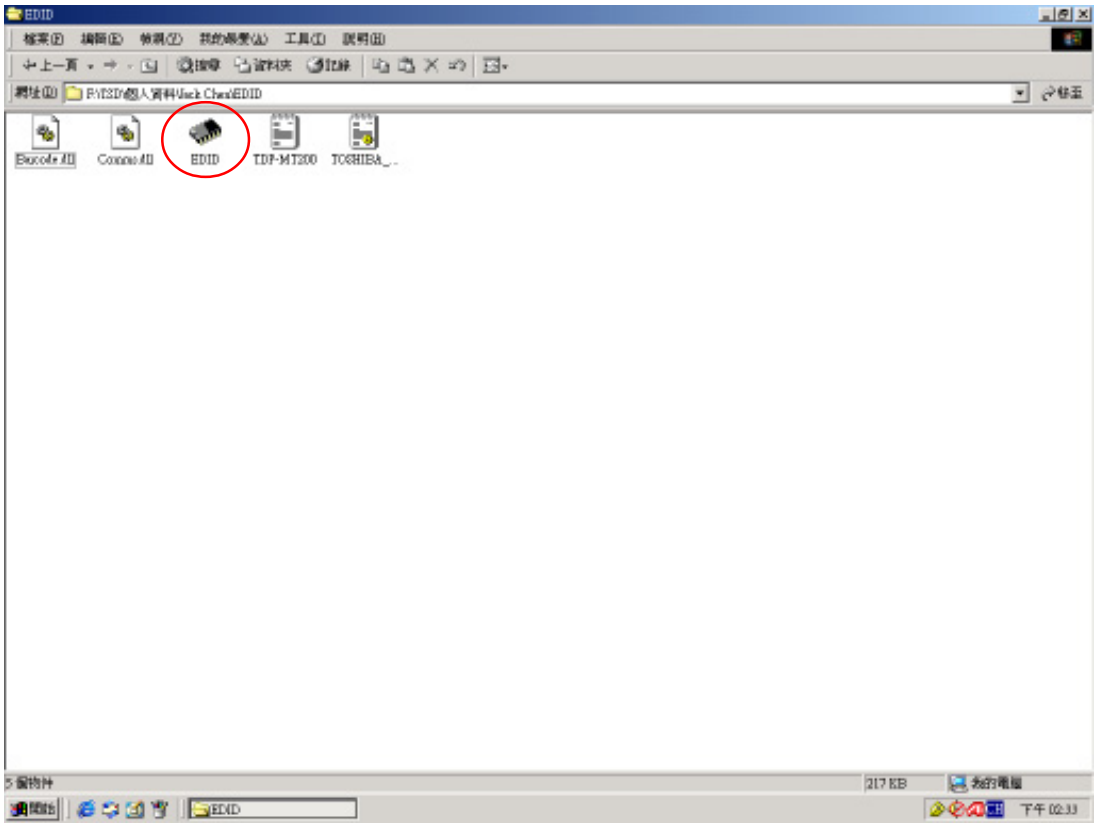
6-2 Setup Procedure

1. Connect DVI-DFP Cable to MT200.
2. Connect RS-232 of Fixture to COM1 of PC. (Can be connected to COM1 or COM2)
3. Connect Power of Fixture.

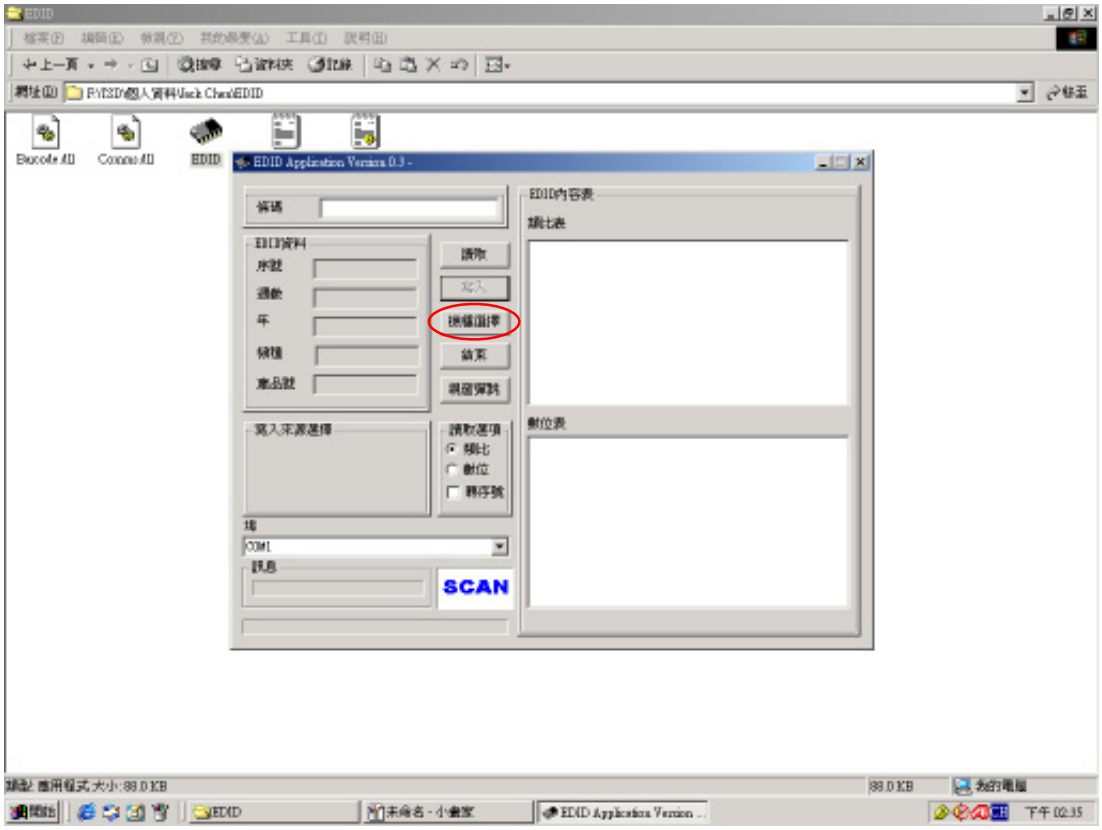


6-3 EDID Upgrade Procedure

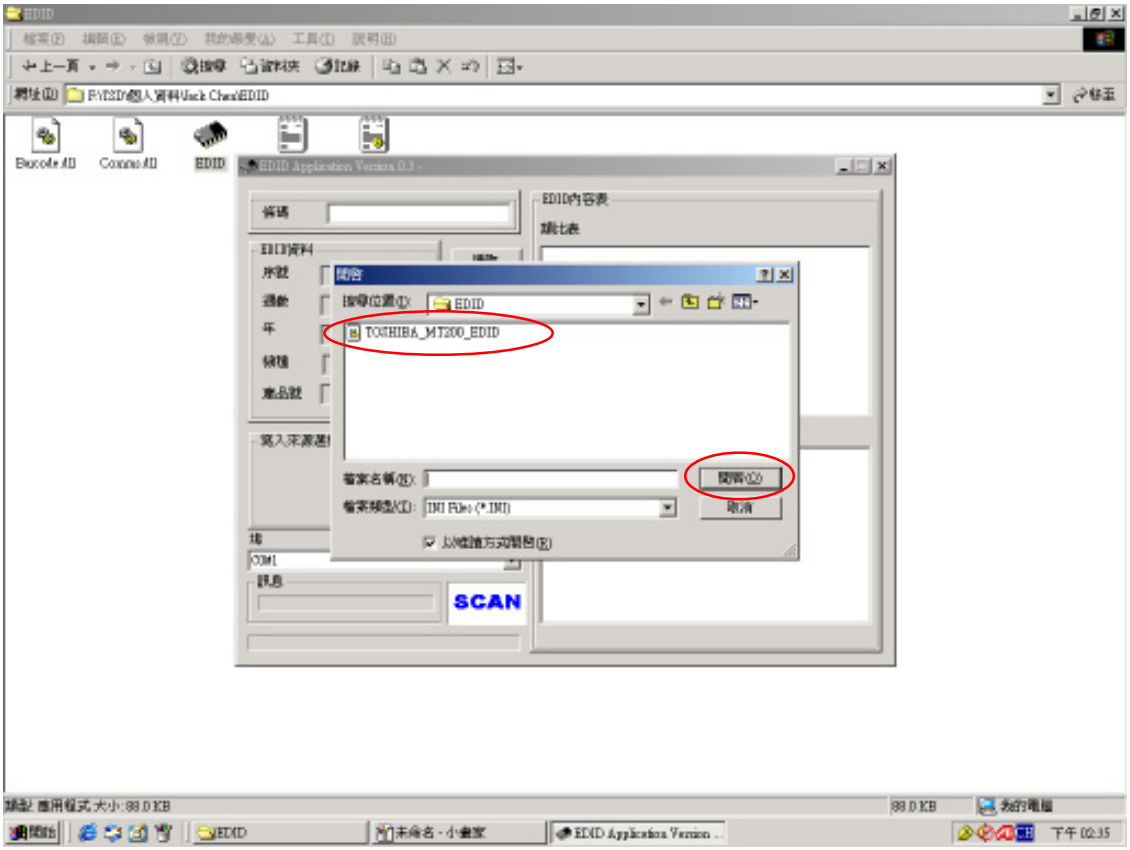
1. Execute "EDID" icon.



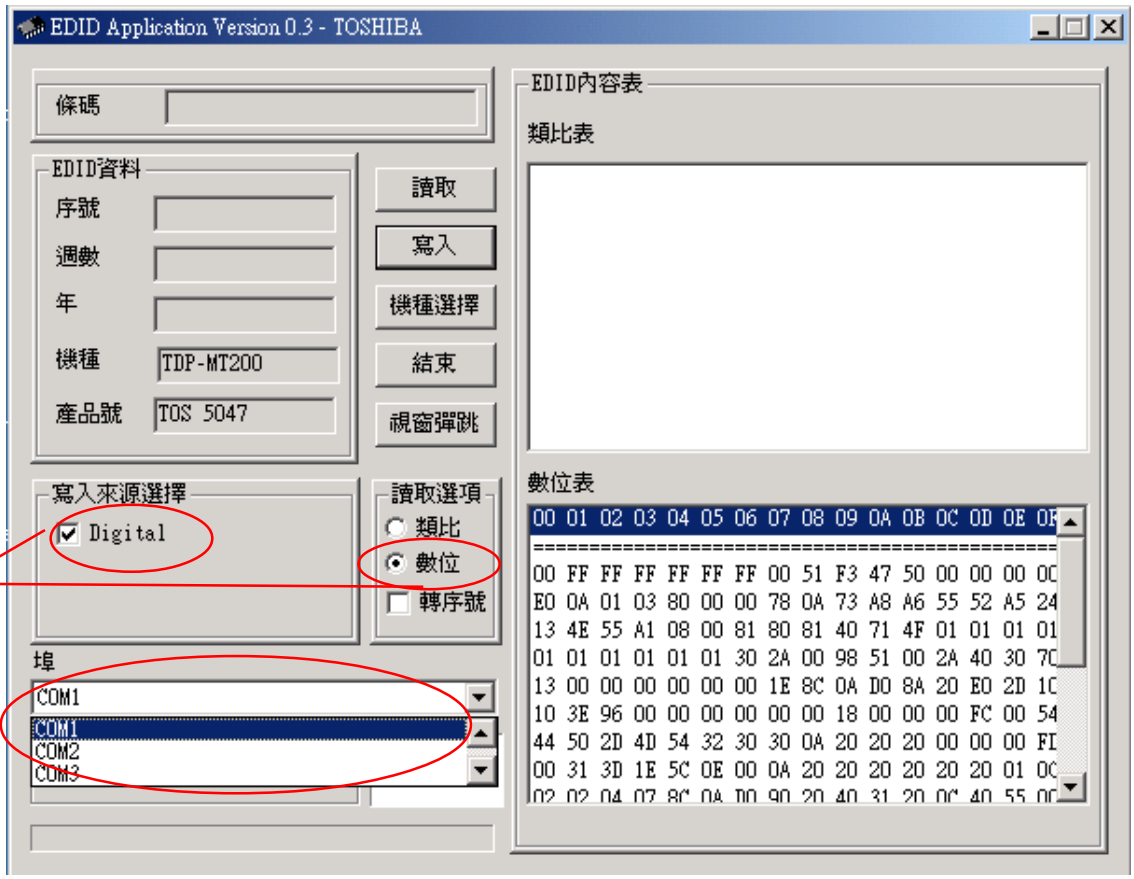
2. Press “Model” icon.



3. Choose the “MT_200_EDID.ini” file then press “open” icon.

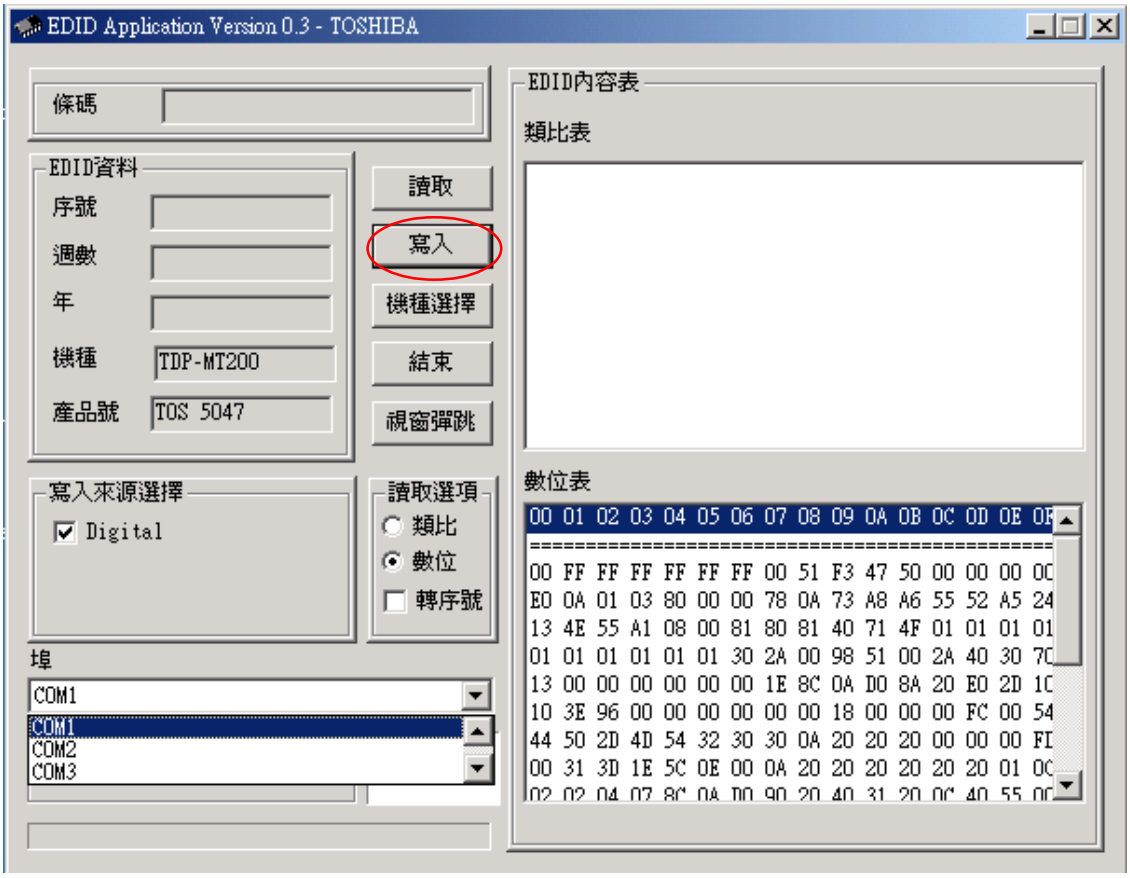


4. Press Port setting button. Setting the right COM Port.

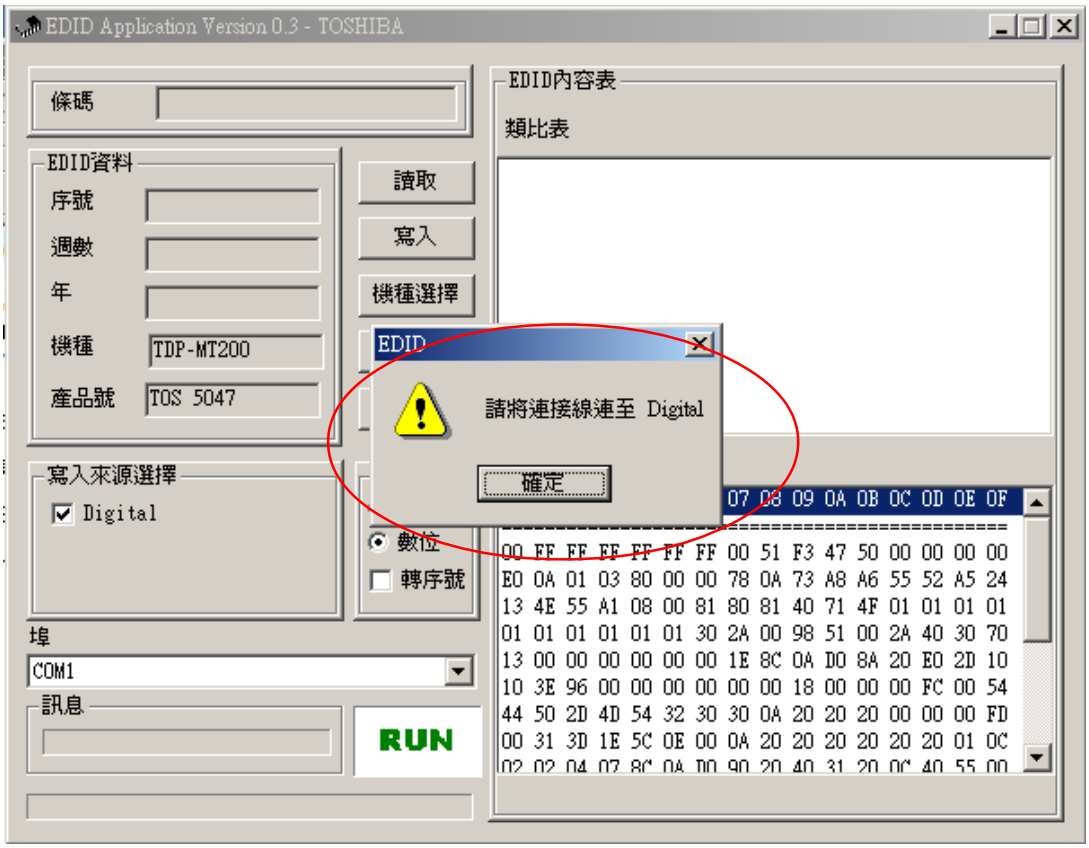


Select“Digital”.

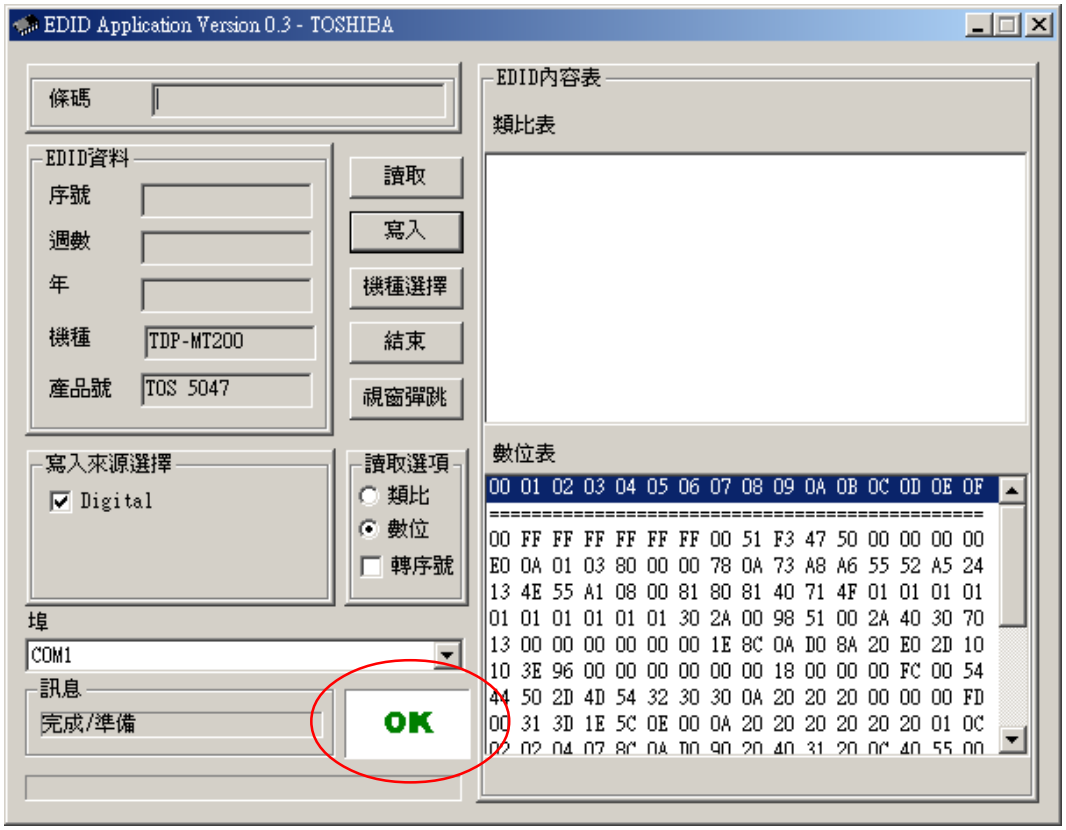
5. Press “Write” icon.



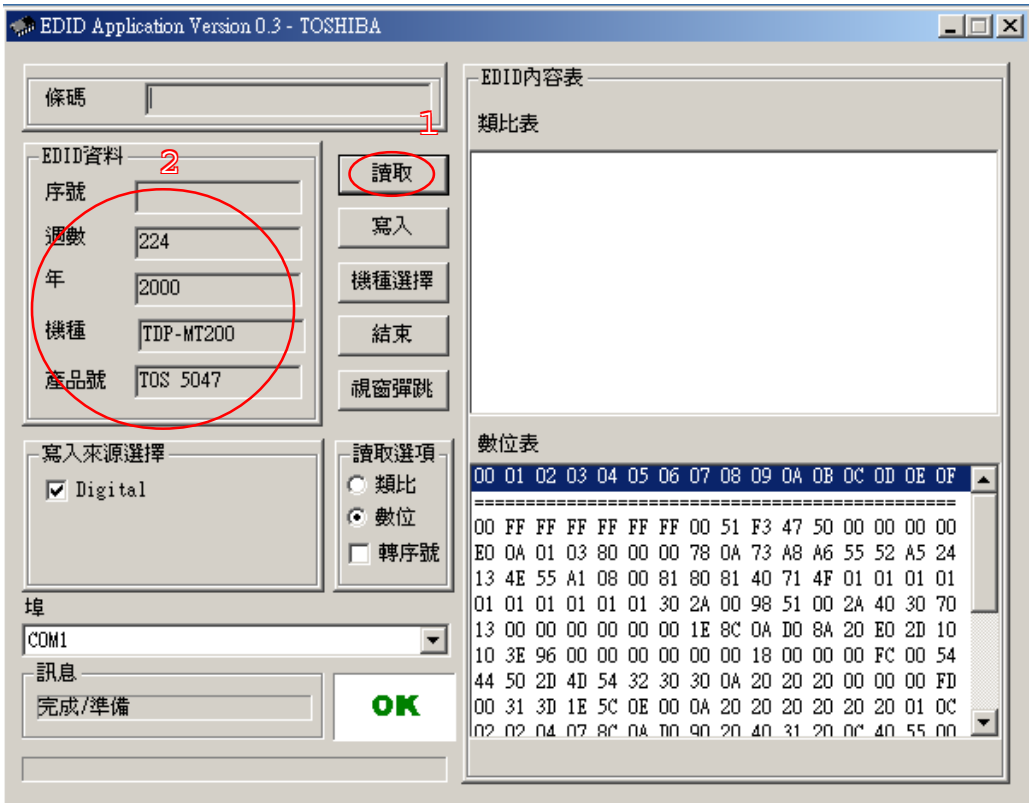
6. The message will shown on the screen.



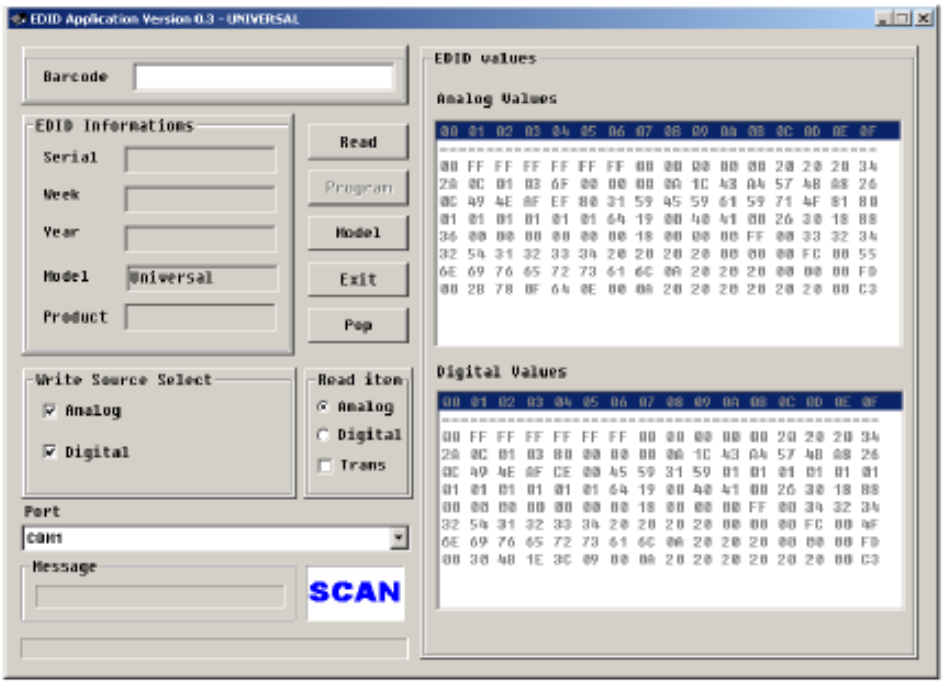
7. “OK” means the EDID upgrade is complete.



8. Check if EDID is ok, press “Read” botton and then the data will show up as step 2 shows.



Note : The below information is for English version of Windows.

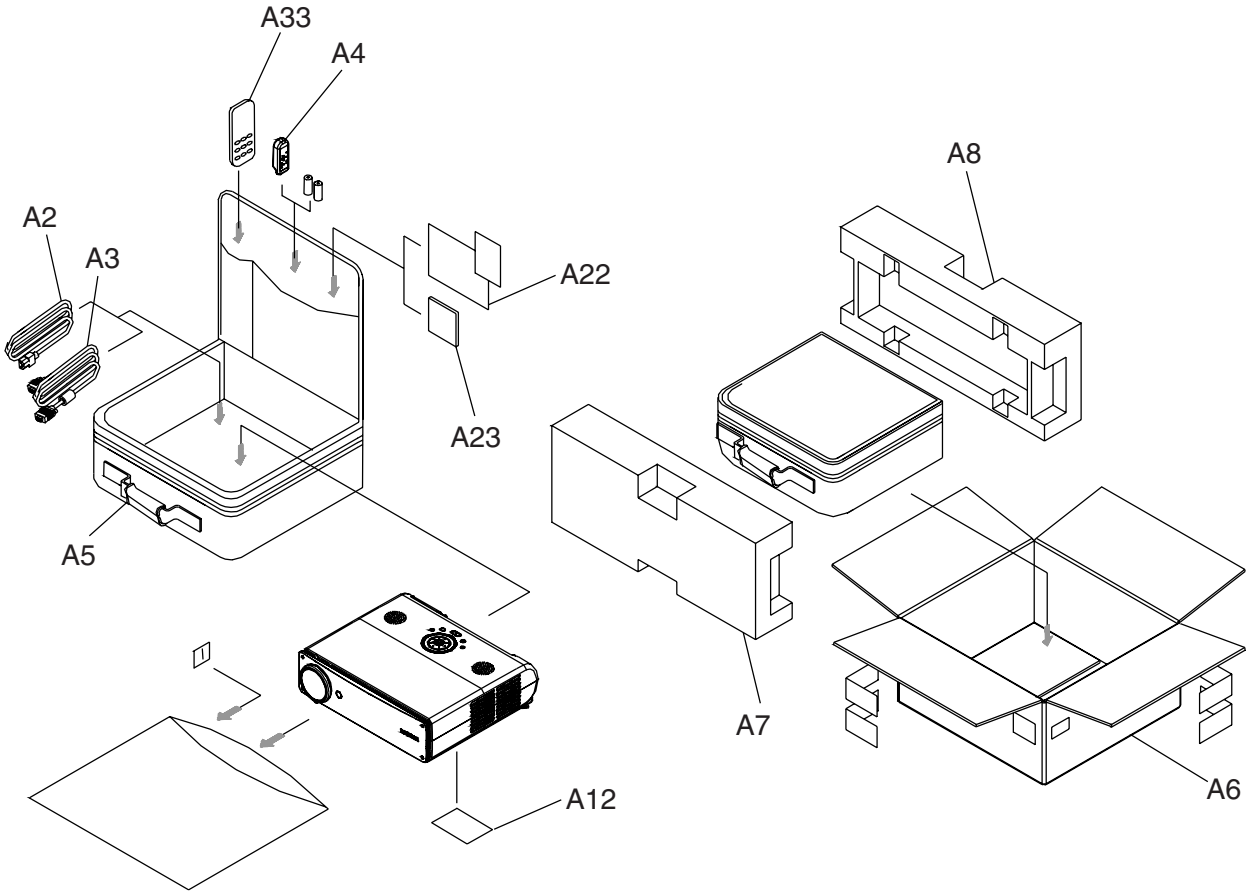


Chapter 7

Exploded View and Replacement Parts List

Packing Assembly

TDP-T80/T90/T91/TW90



CAUTION:

The international hazard symbols " ⚠ " in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identicall to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these comoinents, read carefully the PRODUCT SAFETY NOTICE.
Do not degrade the safety of the receiver through improper servicing

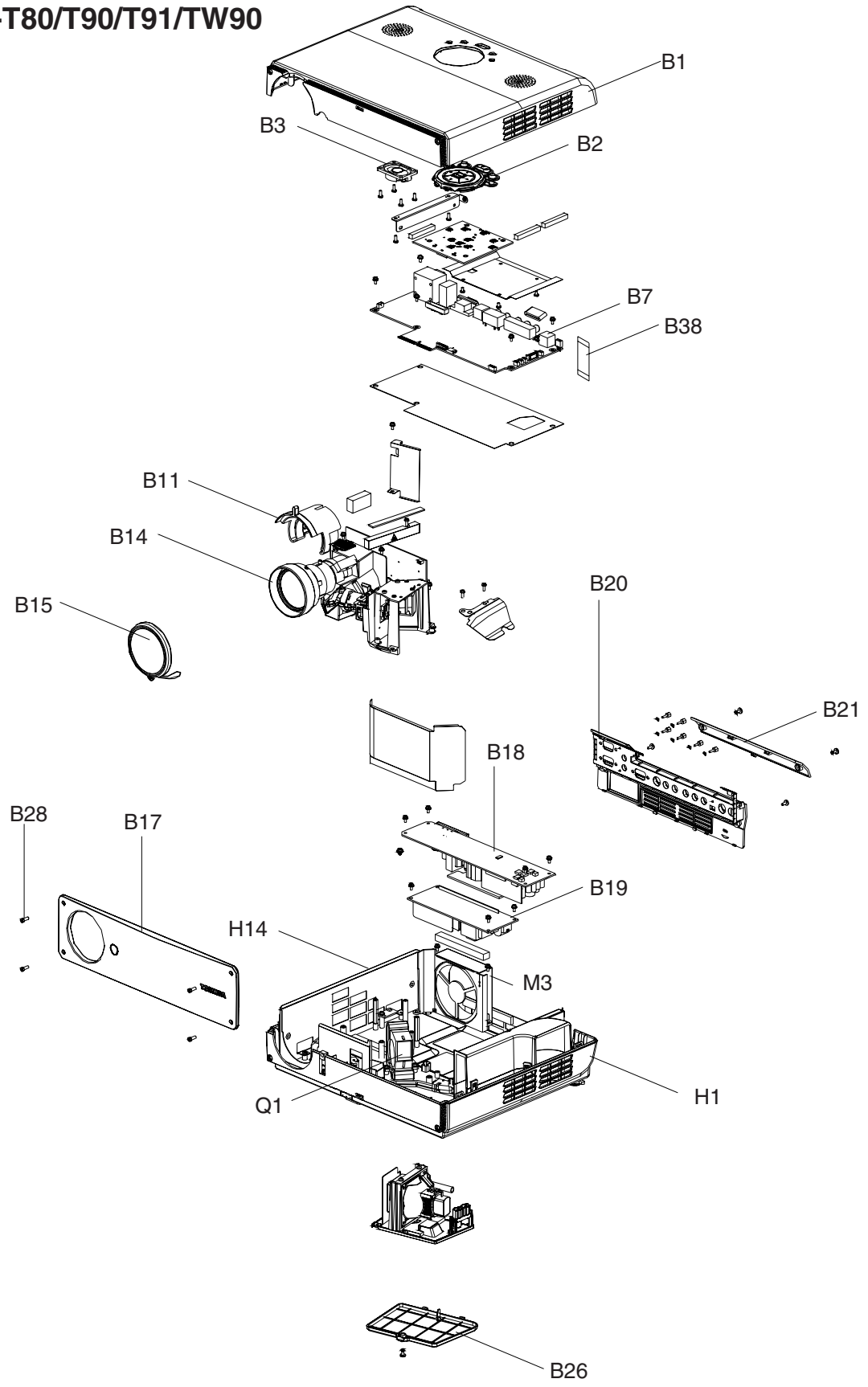
NOTICE:

- *The parts number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The P.C. board assembly with ∗ mark is no longer available after the end of the production.*

	LOCA. NO.	PARTS NO.	DISCRIPTION	T90	T91	TW90	T80
⚠	A2	23587322	POWER CORD AC 3M CH	√	√	√	√
⚠	A2	23587319	POWER CORD AC 3M EU	√	√	√	√
⚠	A2	23587320	POWER CORD AC 3M UK	√	√	√	√
⚠	A2	23587253	POWER CORD AC 3M US	√	√	√	√
	A3	23587252	CABLE VGA 15P	√	√	√	√
	A4	23306561	REMOTE CONTROLLER	√	√		√
	A4	23306559	REMOTE CONTROLLER (WIRELESS LAN MODEL)			√	
	A5	23587341	HARD CASE (WITH A DOCUMENT CAMERA)		√		
	A5	23587285	HARD CASE (WITH NO DOCUMENT CAMERA)	√		√	√
	A6	23587286	CARTON	√		√	√
	A6	23587342	CARTON		√		
	A7	23587344	PAPER CUSHION F		√		
	A7	23587287	PAPRE CUSHION F	√		√	√
	A8	23587288	PAPER CUSHION R	√		√	√
	A8	23587343	PAPER SUPPORT FOR CABLE ARRANGEMENT		√		
	A12	23587323	LABEL SPEC T91		√		
	A12	23587430	LABEL SPEC TDP-T80				√
	A12	23587250	LABEL SPEC TDP-T90	√			
	A12	23587324	LABEL SPEC TW90			√	
	A22	23587329	CD-ROM MANUAL (T90/T91)	√	√		
	A22	23587393	CD-ROM MANUAL(T80)				√
	A22	23587330	CD-ROM MANUAL(TW90)			√	
⚠	A23	23587332	USER'S MANUAL 4 LANGUAGE (T90/91)	√	√		
⚠	A23	23587335	USER'S MANUAL CHINA (T90/91)	√	√		
⚠	A23	23587331	USER'S MANUAL JAPAN (T90/91)	√	√		
⚠	A23	23587394	USER'S MANUAL USA+EUR Booklet (T80)				√
⚠	A23	23587334	USER'S MANUAL USA+EUR Booklet (TW90)			√	
⚠	A23	23587392	USER'S MANUAL, China (T80)				√
⚠	A23	23587438	USER'S MANUAL, China (TW90)			√	
⚠	A23	23587437	USER'S MANUAL, Japan (TW90)			√	
	A33	23587381	MOUSE REMOTO CONTROLLER	√	√	√	

Chassis Assembly

TDP-T80/T90/T91/TW90

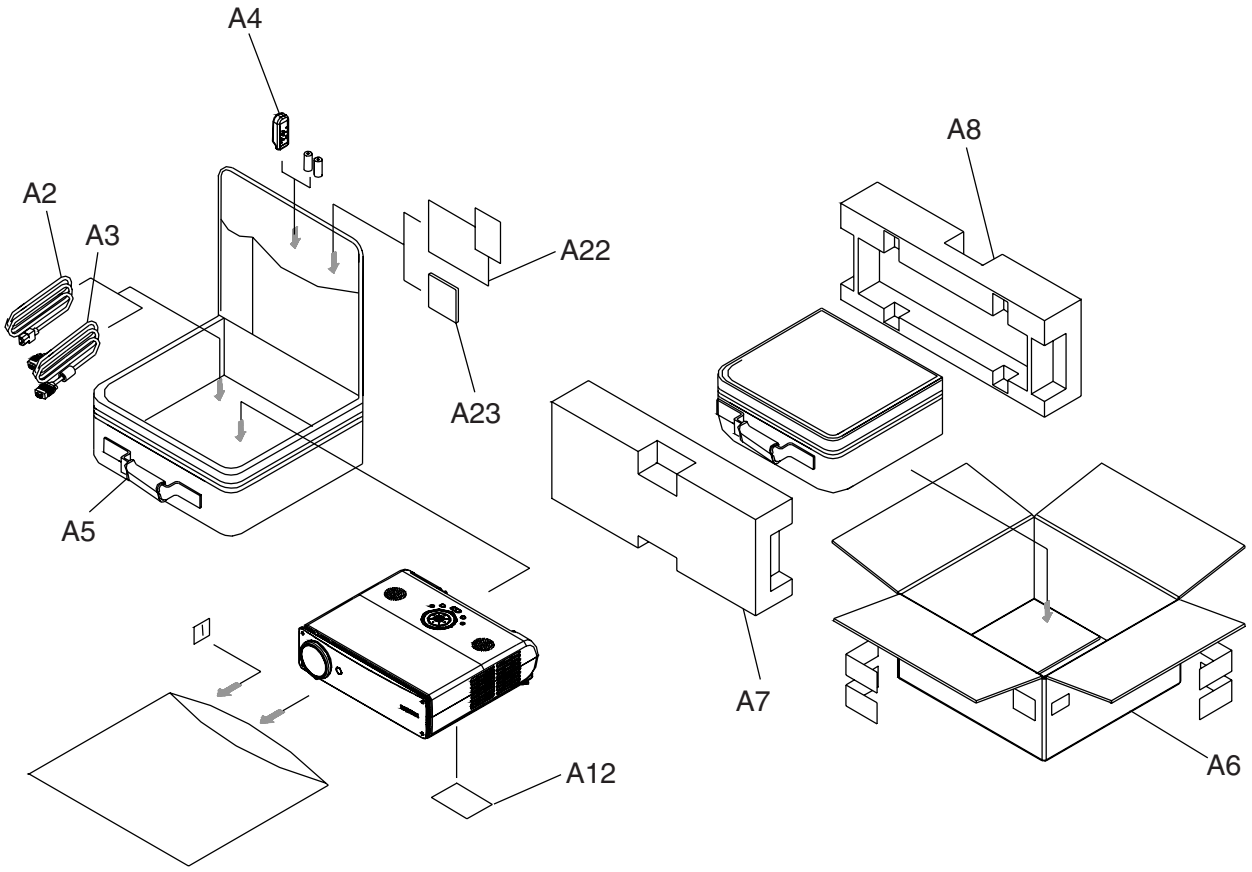


	LOCA. NO.	PARTS NO.	DISCRIPTION	T90	T91	TW90	T80
	B1	23587395	ASSY TOP COVER & SHIELDING T80				√
	B1	23587308	ASSY TOP COVER & SHIELDING T90	√			
	B1	23587338	ASSY TOP COVER & SHIELDING T91		√		
	B1	23587339	ASSY TOP COVER & SHIELDING TW90			√	
	B2	23587373	ASSY SELECT BUTTON MODULE	√	√	√	√
	B3	23587259	SPEAKER	√	√	√	√
	B4	23587374	ASSY KEY PAD MODULE	√	√	√	√
	B7	23587396	PCBA MAIN BOARD (T80)				√
	B7	23587327	PCBA MAIN BOARD (T90/T91)	√	√		
	B7	23587328	PCBA MAIN BOARD (TW90)			√	
	B11	23587261	ZOOM RING (TDP-T90/T80)	√	√	√	√
	B14	23587354	OPTICAL ENGINE T90 T91 T80	√	√		√
	B14	23587446	OPTICAL ENGINE TW90			√	
	B15	23587453	LENS CAP MODULE S80 T90	√	√	√	√
	B17	23587306	ASSY FRONT COVER	√	√	√	√
⚠	B18	23587304	ASSY LVPS QUASAR	√	√	√	√
⚠	B19	23587305	ASSY LAMP DRIVER TDP-T90/80	√	√	√	√
	B20	23587309	ASSY REAR COVER & SHIELDING T90 S80	√			√
	B20	23587340	ASSY REAR COVER & SHIELDING T91 S81		√		
	B20	23587326	ASSY REAR COVER & SHIELDING TW90 SW80			√	
	B21	23587270	OPTION COVER	√	√		√
	B21	23587325	OPTION COVER (WIRELESS LAN MODEL)			√	
⚠	B26	23587445	LAMP COVER PC+ABS-CA01A	√	√	√	√
	B28	23587317	SCREW PAN INNER	√	√	√	√
	B38	23587251	FFC CABLE 24P	√	√	√	√
	D13	23587310	ASSY AIR FLOW	√	√	√	√
	F1	23587266	ELEVATOR PUSH BUTTON TDP-T90/80/S80	√	√	√	√
	F2	23587272	ELEVATOR GEAR BAR	√	√	√	√
	F2	23587283	RUBBER FOOT REAR	√	√	√	√
	F3	23587294	SPRING	√	√	√	√
	F4	23587293	ELEVATOR SPRING	√	√	√	√
	F5	23587271	ELEVATOR BASE HOLDER	√	√	√	√
	F7	23587276	ADJUST FOOT SPACER	√	√	√	√
	F9	23587275	ELEVATOR RUBBER	√	√	√	√
	G1	23587376	ASSY COLOR WHEEL TDP-T90/80	√	√	√	√
	G3	23587377	UV/IR FILTER OF DP739 SERIES	√	√	√	√
	G5	23587262	FOCUS RING	√	√	√	√
	G6	23587248	ZOOM PROJECTION LENS (TDP-T90/T80)	√	√	√	√
⚠	G10	23587466	KLIXON YS11 THERMAL SWITCH WIRE LENGTH				√
⚠	G10	23587254	KLIXON YS11 THERMAL SWITCH WIRE LENGTH	√	√	√	
	G14	23587378	DMD ANTIDUST RUBBER	√	√	√	√
	G15	23587255	DMD 1024*768 PIXEL DDR FTP 0.7"XGA	√	√	√	√
	G16	23587256	DMD SOCKET	√	√	√	√

	LOCA. NO.	PARTS NO.	DISCRIPTION	T90	T91	TW90	T80
	G17	23587337	PCBA DMD BOARD			√	
	G17	23587313	PCBA DMD BOARD	√	√		√
	G21	23587299	DMD SCREW	√	√	√	√
	G35	23587284	DMD THERMAL PAD	√	√	√	√
	H1	23587260	BOTTOM COVER	√	√	√	√
	H3	LENS DUCT	23587268	√	√	√	√
	H7	23587379	ASSY ADJUST FOOT MODULE	√	√	√	√
	H9	23587277	ENGINE PAD	√	√	√	√
	H14	23587290	BOTTOM BRKT	√	√	√	√
	H15	23587316	PCBA IR SENSOR BD	√	√	√	√
	H22	23587267	ELEVATOR FOOT TDP-T90/80/S80	√	√	√	√
⚠	H25	23587303	ASSY INTERRUPTER SWITCH	√	√	√	√
⚠	M3	AXIAL FAN	23587257	√	√	√	√
⚠	Q1	23587258	BLOEWER,GB1205PKV3-8AY	√	√	√	√
	—	23771423	2.4Ghzs DSSS WIRELESS PCMCIA CARD			√	
	—	23587274	ENTER KEY SPRING	√	√	√	√
	—	23587380	MOUSE REMOCON RECEIVER	√	√	√	
	—	23587318	NUT HEX	√	√	√	√
	—	23587314	PCBA KEYPAD BOARD	√	√	√	√
	—	23587353	PCBA PHOTO SENSOR BD	√	√	√	√
⚠	—	23587315	PCBA THERMAL SENSOR	√	√	√	√
	—	23587345	WIRELESS PC BOARD TDP-TW90/SW80			√	
	D.C.	23532806	COVER, ASSY-BASE BOTTOM		√		
	D.C.	23532807	COVER, CAMERA COVER TOP		√		
	D.C.	23940106	PIECE, BUSH CODE		√		
	D.C.	23532213	FOCUS RING		√		
	D.C.	23940115	PIECE, SCREW COVER		√		
	D.C.	23532803	TOP COVER S21		√		
	D.C.	23771366	PRODUCTS, IKK66LC		√		
	D.C.	23507337	WIRE HARNESS, S21CAMERA		√		
	D.C.	75000867	PCB FS2RL2		√		

Packing Assembly

TDP-S80/S81/SW80



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NOTICE:

- *The parts number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
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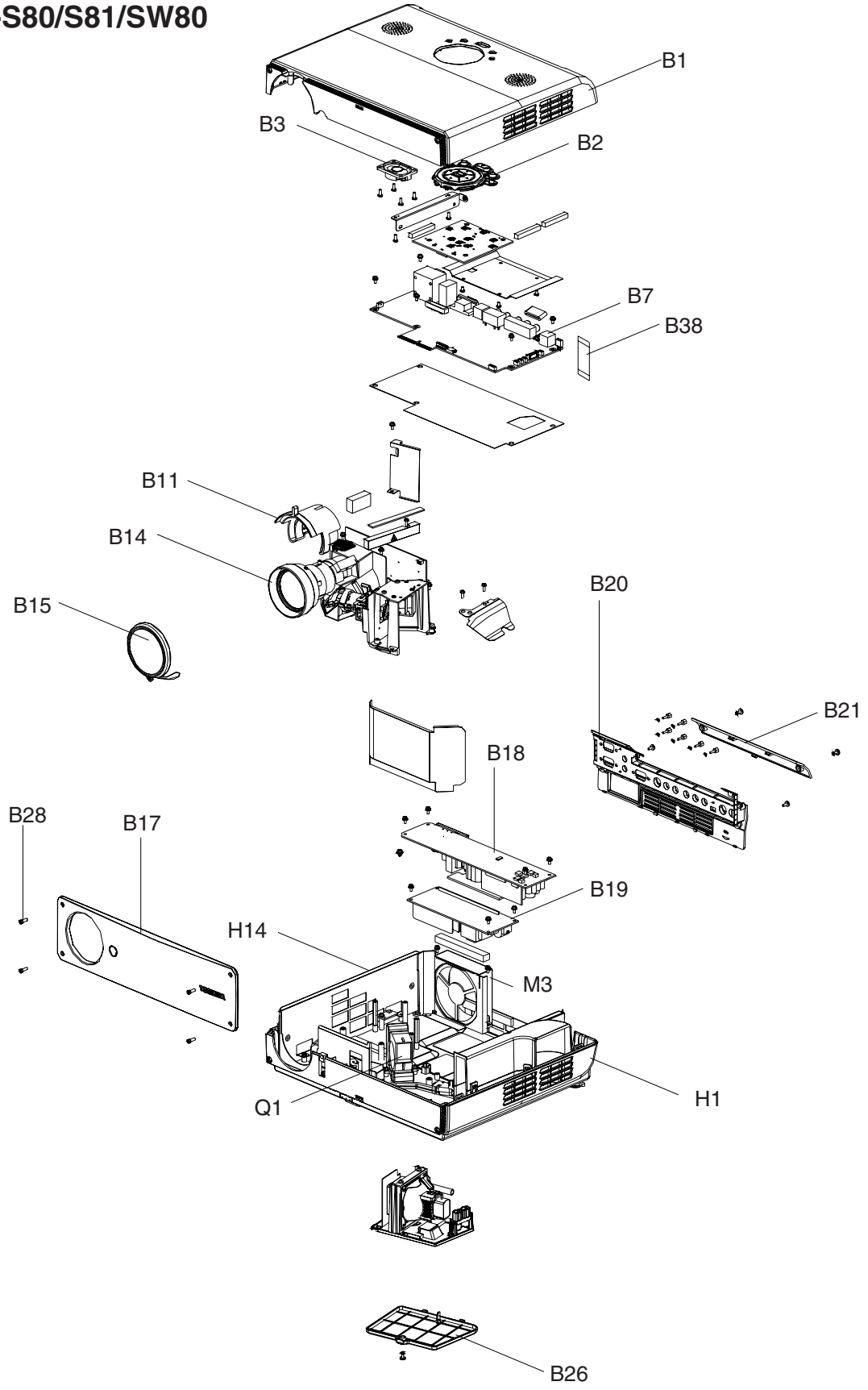
	LOCA. NO.	PARTS NO.	DISCRIPTION	S80	S81	SW80
⚠	A2	23587322	POWER CORD AC 3M CH	√	√	√
⚠	A2	23587319	POWER CORD AC 3M EU	√	√	√
⚠	A2	23587320	POWER CORD AC 3M UK	√	√	√
⚠	A2	23587253	POWER CORD AC 3M US	√	√	√
	A3	23587252	CABLE VGA 15P	√	√	√
	A4	23306561	REMOTE CONTROLLER	√	√	
	A4	23306559	REMOTE CONTROLLER (WIRELESS LAN MODEL)			√
	A5	23587341	HARD CASE (WITH A DOCUMENT CAMERA)		√	
	A5	23587285	HARD CASE (WITH NO DOCUMENT CAMERA)	√		√
	A6	23587286	CARTON	√		√
	A6	23587342	CARTON		√	
	A7	23587344	PAPER CUSHION F		√	
	A7	23587287	PAPRE CUSHION F	√		√
	A8	23587288	PAPER CUSHION R	√		√
	A8	23587343	PAPER SUPPORT FOR CABLE ARRANGEMENT		√	
	A12	23587431	LABEL SPEC TDP-S80	√		
	A12	23587432	LABEL SPEC TDP-S81		√	
	A12	23587433	LABEL SPEC TDP-SW80			√
	A22	23587439	CD-ROM MANUAL(S80/81)	√	√	
	A22	23587441	CD-ROM MANUAL(SW80)			√
⚠	A23	23587440	USER'S MANUAL (S80/81) Booklet	√	√	
⚠	A23	23587465	USER'S MANUAL (SW80) Booklet			√
⚠	A23	23587443	USER'S MANUAL, China (SW80)			√
⚠	A23	23587442	USER'S MANUAL, Japan (SW80)			√

Chassis Assembly

TDP-S80/S81/SW80

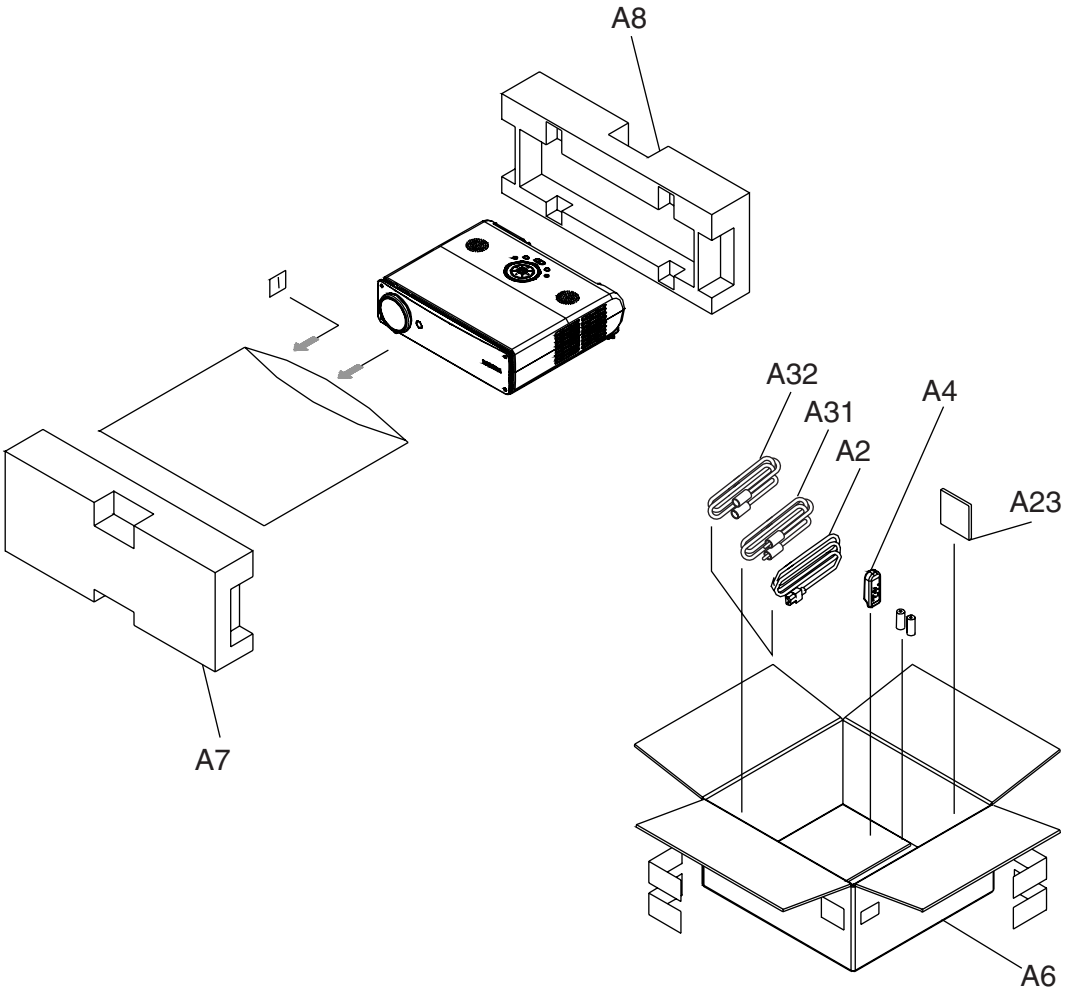


	LOCA. NO.	PARTS NO.	DISCRIPTION	S80	S81	SW80
	B1	23587455	ASSY TOP COVER & SHIELDING S80	√		
	B1	23587456	ASSY TOP COVER & SHIELDING S81		√	
	B1	23587457	ASSY TOP COVER & SHIELDING SW80			√
	B2	23587373	ASSY SELECT BUTTON MODULE	√	√	√
	B3	23587259	SPEAKER	√	√	√
	B4	23587374	ASSY KEY PAD MODULE	√	√	√
	B7	23587459	PCBA MAIN BOARD S80	√		
	B7	23587460	PCBA MAIN BOARD S81		√	
	B7	23587461	PCBA MAIN BOARD SW80			√
	B11	23587404	ZOOM RING (TDP-MT200/S80)	√	√	√
	B14	23587449	OPTICAL ENGINE S80 S81	√	√	
	B14	23587450	OPTICAL ENGINE SW80			V
	B15	23587453	LENS CAP MODULE S80 T90	√	√	√
	B17	23587306	ASSY FRONT COVER	√	√	√
⚠	B18	23587304	ASSY LVPS QUASAR	√	√	√
⚠	B19	23587458	ASSY LAMP DRIVER TDP-S80	√	√	√
	B20	23587309	ASSY REAR COVER & SHIELDING T90 S80	√		
	B20	23587340	ASSY REAR COVER & SHIELDING T91 S81		√	
	B20	23587326	ASSY REAR COVER & SHIELDING TW90 SW80			√
	B21	23587270	OPTION COVER	√	√	
	B21	23587325	OPTION COVER (WIRELESS LAN MODEL)			V
⚠	B26	23587445	LAMP COVER PC+ABS-CA01A	√	√	√
	B28	23587317	SCREW PAN INNER	√	√	√
	B38	23587251	FFC CABLE 24P	√	√	√
	D13	23587310	ASSY AIR FLOW	√	√	√
	F1	23587266	ELEVATOR PUSH BUTTON TDP-T90/80/S80	√	√	√
	F2	23587283	RUBBER FOOT REAR	√	√	√
	F3	23587294	SPRING	√	√	√
	F4	23587293	ELEVATOR SPRING	√	√	√
	F5	23587271	ELEVATOR BASE HOLDER	√	√	√
	F7	23587276	ADJUST FOOT SPACER	√	√	√
	F7	23587267	ELEVATOR FOOT TDP-T90/80/S80	√	√	√
	F9	23587275	ELEVATOR RUBBER	√	√	√
	G1	23587451	ASSY COLOR WHEEL TDP-S80	√	√	√
	G3	23587377	UV/IR FILTER OF DP739 SERIES	√	√	√
	G5	23587262	FOCUS RING	√	√	√
	G6	23587429	ZOOM PROJECTION LENS (TDP-MT200/S80)	√	√	√
⚠	G10	23587466	KLIXON YS11 THERMAL SWITCH WIRE LENGTH	√	√	√
	G14	23587378	DMD ANTIDUST RUBBER	√	√	√
	G15	23587444	DMD 800*600 PIXEL DDR FTP 0.55" SVGA	√	√	√
	G16	23587256	DMD SOCKET	√	√	√
	G17	23587337	PCBA DMD BOARD			√
	G17	23587313	PCBA DMD BOARD	√	√	

	LOCA. NO.	PARTS NO.	DISCRIPTION	S80	S81	SW80
	G21	23587299	DMD SCREW	√	√	√
	G35	23587284	DMD THERMAL PAD	√	√	√
	H1	23587260	BOTTOM COVER	√	√	√
	H3	23587268	LENS DUCT	√	√	√
	H7	23587379	ASSY ADJUST FOOT MODULE	√	√	√
	H9	23587277	ENGINE PAD	√	√	√
	H14	23587290	BOTTOM BRKT	√	√	√
	H15	23587316	PCBA IR SENSOR BD	√	√	√
	H22	23587272	ELEVATOR GEAR BAR	√	√	√
⚠	H25	23587303	ASSY INTERRUPTER SWITCH	√	√	√
⚠	M3	23587257	AXIAL FAN	√	√	√
⚠	Q1	23587258	BLOEWER,GB1205PKV3-8AY	√	√	√
	—	23771423	2.4Ghzs DSSS WIRELESS PCMCIA CARD			√
	—	23587274	ENTER KEY SPRING	√	√	√
	—	23587318	NUT HEX	√	√	√
	—	23587314	PCBA KEYPAD BOARD	√	√	√
	—	23587353	PCBA PHOTO SENSOR BD	√	√	√
⚠	—	23587315	PCBA THERMAL SENSOR	√	√	√
	—	23587345	WIRELESS PC BOARD TDP-TW90/SW80			√
	D.C.	23532806	COVER, ASSY-BASE BOTTOM		√	
	D.C.	23532807	COVER, CAMERA COVER TOP		√	
	D.C.	23940106	PIECE, BUSH CODE		√	
	D.C.	23532213	FOCUS RING		√	
	D.C.	23940115	PIECE, SCREW COVER		√	
	D.C.	23532803	TOP COVER S21		√	
	D.C.	23771366	PRODUCTS, IKK66LC		√	
	D.C.	23507337	WIRE HARNESS, S21CAMERA		√	
	D.C.	75000867	PCB FS2RL2		√	

Packing Assembly

TDP-MT200



CAUTION:

The international hazard symbols " ⚠ " in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identicall to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these comoinents, read carefully the PRODUCT SAFETY NOTICE.
Do not degrade the safety of the receiver through improper servicing

NOTICE:

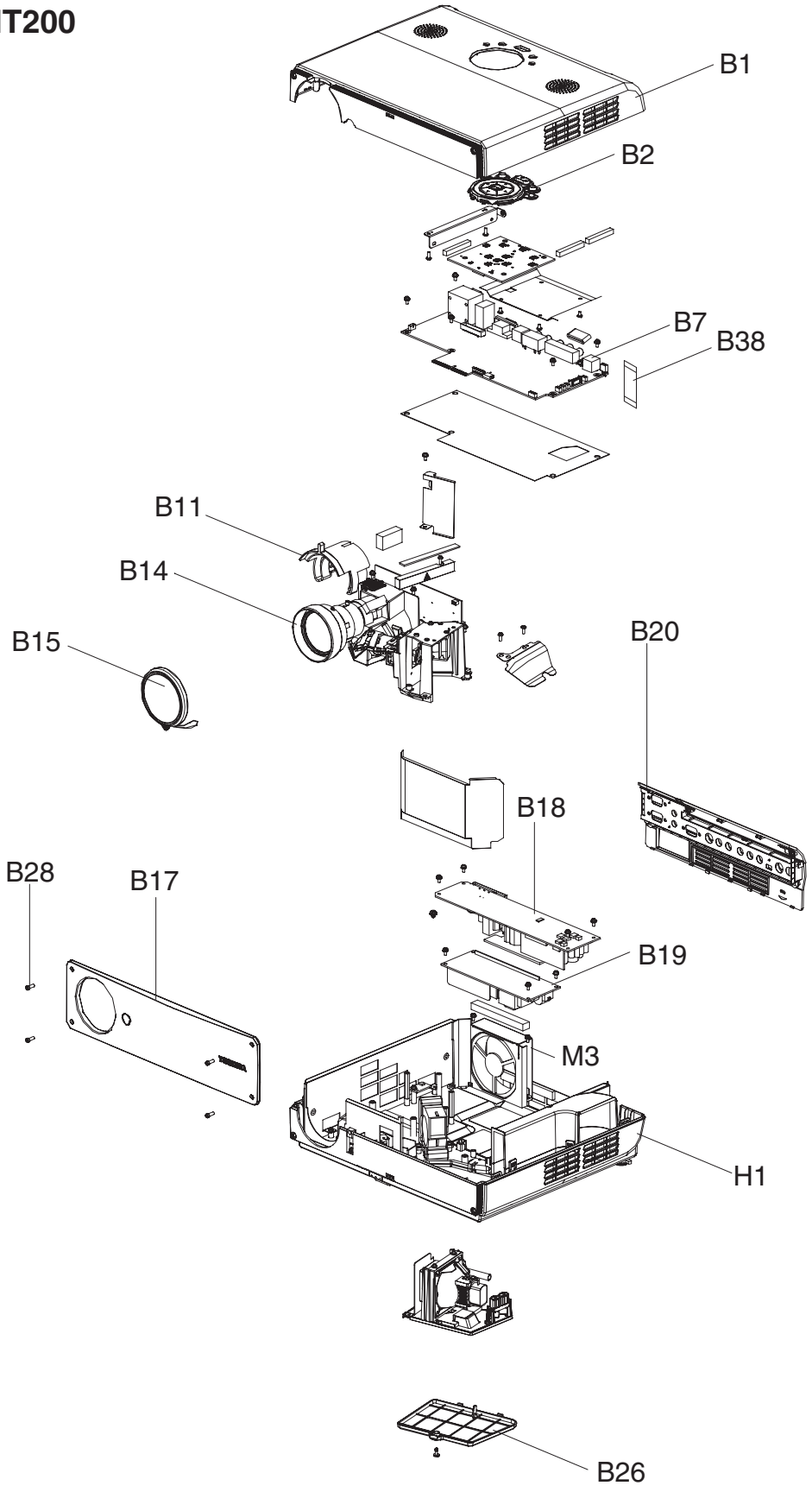
- *The parts number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The P.C. board assembly with ∗ mark is no longer available after the end of the production.*

	LOCA. NO.	PARTS NO.	DISCRIPTION
⚠	A2	23587322	POWER CORD AC 3M CH
⚠	A2	23587319	POWER CORD AC 3M EU
⚠	A2	23587320	POWER CORD AC 3M UK
⚠	A2	23587253	POWER CORD AC 3M US
	A4	23587412	REMOTE CONTROLLER CT-90221
	A6	23587286	CARTON

	LOCA. NO.	PARTS NO.	DISCRIPTION
	A7	23587287	PAPRE CUSHION F
	A8	23587288	PAPER CUSHION R
⚠	A23	23587397	USER'S MANUAL 7 LANGUAGE (MT200)
	A31	23368800	VIDEO CABLE PIN-PIN 3M
	A32	23587509	S-CABLE 3M

Chassis Assembly

TDP-MT200



	LOCA. NO.	PARTS NO.	DISCRIPTION
	B1	23587409	ASSY TOP COVER & SHIELDING MT200
	B2	23587448	ASSY SELECT BUTTON MODULE MT200
	B4	23587447	ASSY KEY PAD MODULE TDP-M200
	B7	23587411	PCBA MAIN BOARD MT200
	B11	23587404	ZOOM RING (TDP-MT200/S80)
	B14	23587407	OPTICAL ENGINE MT200
	B15	23587307	LENS CAP MODULE MT200
	B17	23587306	ASSY FRONT COVER
⚠	B18	23587304	ASSY LVPS QUASAR
⚠	B19	23587408	ASSY LAMP DRIVER TDP-MT200
	B20	23587410	ASSY REAR COVER MT200
⚠	B26	23587403	LAMP COVER PC+ABS-CA01A TDP-MT200
	B28	23587317	SCREW PAN INNER
	B38	23587251	FFC CABLE 24P
	D13	23587310	ASSY AIR FLOW
	F1	23587401	ELEVATOR PUSH BUTTON TDP-MT200
	F2	23587272	ELEVATOR GEAR BAR
	F2	23587283	RUBBER FOOT REAR
	F3	SPRING	23587294
	F4	23587293	ELEVATOR SPRING
	F5	23587271	ELEVATOR BASE HOLDER
	F7	23587276	ADJUST FOOT SPACER
	F9	23587275	ELEVATOR RUBBER
	G1	23587406	ASSY COLOR WHEEL TPD-MT200

	LOCA. NO.	PARTS NO.	DISCRIPTION
	G3	23587377	UV/IR FILTER OF DP739 SERIES
	G5	23587262	FOCUS RING
	G6	23587429	ZOOM PROJECTION LENS (TDP-MT200/S80)
⚠	G10	23587466	KLIXON YS11 THERMAL SWITCH WIRE LENGTH
	G14	23587378	DMD ANTIDUST RUBBER
	G15	23587398	DMD 854*480 PIXEL 0.5" 480P DDR WITH
	G16	23587256	DMD SOCKET
	G17	23587313	PCBA DMD BOARD
	G21	23587299	DMD SCREW
	G35	23587284	DMD THERMAL PAD
	H1	23587400	BOTTOM COVER TDP-MT200
	H3	23587268	LENS DUCT
	H7	23587379	ASSY ADJUST FOOT MODULE
	H9	23587277	ENGINE PAD
	H14	23587290	BOTTOM BRKT
	H15	23587316	PCBA IR SENSOR BD
	H22	23587402	ELEVATOR FOOT TDP-MT200
⚠	H25	23587303	ASSY INTERRUPTER SWITCH
	M3	23587257	AXIAL FAN
	Q1	23587258	BLOEWER,GB1205PKV3-8AY
	—	23587274	ENTER KEY SPRING
	—	23587318	NUT HEX
	—	23587314	PCBA KEYPAD BOARD
	—	23587353	PCBA PHOTO SENSOR BD
⚠	—	23587315	PCBA THERMAL SENSOR
	—	23587405	RUBBER PAD WHITE

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN